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CITATIONS

687886—63——1

In the Supreme Court of the United States

OCTOBER TERM, 1962

No. —

UNITED STATES OF AMERICA, APPELLANT

v.

ALUMINUM COMPANY OF AMERICA AND ROME CABLE CORPORATION

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF NEW YORK

JURISDICTIONAL STATEMENT

OPINION BELOW

The opinion of the district court (App. A, *infra*) is reported at CCH, 1963 Trade Cases ¶ 70,653. The findings of fact and conclusions of law (App. B, *infra*), are unreported.[1]

[1] As printed herein, the opinion reflects corrections made by the district court and communicated to appellant and appellees on February 20, 1963. Subsequent to the filing of the district court's opinion, findings of fact, and conclusions of law, appellees moved under Rule 52(b), Fed. R. Civ. P., for additional findings of fact. The additional findings requested by appellees were adopted by the district court on February 21, 1963, and are included in Appendix C.

JURISDICTION

The judgment of the district court was entered on January 28, 1963. The notice of appeal was filed by the United States on March 29, 1963. The time to docket the appeal was extended by the district court to and including June 11, 1963. The jurisdiction of the Court is conferred by Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823, as amended, 15 U.S.C. 29. *United States* v. *du Pont & Co.*, 353 U.S. 586; *United States* v. *Columbia Steel Co.*, 334 U.S. 495.

QUESTION PRESENTED

This case concerns the validity under Section 7 of the Clayton Act of the acquisition by Aluminum Company of America (Alcoa), the nation's largest producer of primary aluminum and aluminum conductor wire and cable, of all the stock and assets of Rome Cable Corporation (Rome), one of the few substantial independent fabricators of aluminum conductor wire and cable. The question presented by this appeal is whether the acquisition of Rome by Alcoa may substantially lessen competition or tend to create a monopoly in the production and sale of (i) aluminum conductor wire and cable and (ii) insulated aluminum wire and cable, in violation of Section 7.

STATUTE INVOLVED

Section 7 of the Clayton Act, 38 Stat. 731, as amended, 64 Stat. 1125, 15 U.S.C. 18, provides in pertinent part:

> No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no

corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

STATEMENT

1. The merging companies

Alcoa is a fully integrated aluminum producer, owning and operating its own shipping lines, water companies, railroads, electric power systems, and coal properties as well as many raw material locations, refineries, and plants for the production and fabrication of aluminum (GX 49). Its three refineries and thirty plants—exclusive of Rome facilities—produce a full range of primary, intermediate and fabricated aluminum products, including, *inter alia,* ingot, sheet and plate, rod, extrusions, castings, foil, and aluminum conductor wire and cable (Fdg. 12, App. B).

Alcoa is, by a substantial margin, the largest domestic producer of primary aluminum. In 1960 it had assets of $1.4 billion and gross revenues of $870 million (GX 49). In that same year its primary capacity (existing or under construction) was 38.6 percent of the nation's total, approximately 45 percent greater than that of the next largest producer (Reynolds Metals Company, with 26.4 percent), approximately 67 percent greater than that of the third largest producer (Kaiser Aluminum & Chemical Corp., with 23 percent), and more than 200 percent

greater than the remaining three primary producers together (Ormet, Inc., with 6.8 percent; Harvey Aluminum, with 2.8 percent; and Anaconda Aluminum Company, with 2.4 percent) (App. A, 8a).

The lines of commerce upon which the merger would bear most heavily are aluminum conductor wire and cable ("aluminum conductor") and insulated or covered aluminum conductor wire and cable ("insulated aluminum" or "aluminum insulated"). Conductor wire and cable is a major end use of aluminum. Thus, in 1958 the total United States production of primary aluminum ingot was 3,131 million pounds, while 226 million pounds of aluminum conductor were produced, of which 51 million pounds were insulated wire and cable (AR 49; GX 434, GX 436).

Prior to this merger, Alcoa was also the leading producer of aluminum conductor and the third largest producer of insulated aluminum conductor (GX 434, GX 436). In 1958, the last year before the Rome acquisition, Alcoa shipped 27.8 percent of aluminum conductor wire and cable, and 11.6 percent of insulated aluminum conductor (Fdg. 45(a); App. B).

Rome Cable Corporation was incorporated in 1936 and began business in Rome, New York, as a fabricator of copper conductor wire and cable. By the time it was acquired twenty-three years later, Rome had established two additional plants, at Collegeville, Pennsylvania, and Torrance, California, and had grown into one of the nation's largest and most important independent fabricators of aluminum and copper wire and cable products. One year after its incorporation, Rome reported assets of $1.9 million

and annual sales of $1.8 million; on March 31, 1958, a year before its acquisition, Rome's assets had increased to $24 million and its annual sales to $40.6 million (GX 9, GX 17, GX 47). In the five years preceding the acquisition, Rome's sales averaged $47 million annually (GX 7).

Rome enjoyed an excellent reputation in the trade because of its broad range of high quality aluminum and copper conductor and accessory products, its high degree of technical skill, and its substantial progress in research and development. As one of four independent fabricators which were integrated backward through the aluminum rod-making stage (Tr. 403–404, 743, 1895), Rome produced both aluminum and copper rod for its own use and for resale to others (Fdg. 16, App. B). Thus while most independents must buy aluminum rod, an intermediate product, for drawing into wire, Rome was able to buy aluminum ingot, the primary product—a significant competitive advantage (Tr. 116; Tr. 1008–1009). Its range of conductor and accessory products compared favorably with the offerings of other independent fabricators, and was much broader than Alcoa's (Tr. 1263–1264). In 1958, the last year prior to merger, Rome accounted for 1.3 percent of aluminum conductor shipments, and 4.7 percent of aluminum insulated conductor shipments (Fdg. 45(a), App. B).

2. The merger in its commercial setting

As noted above, in 1958 alone, 226 million pounds of aluminum conductor wire and cable were produced, almost exclusively for use by electric utilities in carry-

ing electric power from generating plants to consumers throughout the United States. Copper is the only other material utilized commercially for the same general purpose. However, each metal has found, or is in process of finding, those particular utility applications for which it is peculiarly fitted from a commercial standpoint.

The 3,300 operating electrical utilities which presently purchase such wire have developed clear patterns of use for copper cable and for aluminum cable, both in transmission lines (the "wholesale" lines which carry current at high voltages to substations) and distribution lines (the "retail" lines which route the electricity at reduced voltages from the substations to the consumers). Both types of lines are usually strung above ground, except in heavily congested areas, such as city centers, where they are run underground. Underground, where the conductor must be heavily insulated, copper has always been and remains today virtually the only conductor used (GX 468). Overhead, where transmission and some distribution lines are bare and other distribution lines are less heavily insulated, aluminum has replaced copper at a rapid rate. By 1950, 74.4 percent of all additions to overhead transmission lines were being constructed with bare aluminum conductor or ACSR (aluminum cable, steel reinforced); by 1959, this figure had increased to 94.4 percent (GX 468). As the district court found, bare aluminum conductor "has practically displaced copper for use in overhead transmission lines" (App. A, 15a).

In the overhead distribution field, the primary application for insulated aluminum conductor, aluminum did not begin to make serious inroads upon copper until the early 1950's. The scarcity of copper during the Korean conflict, and copper's subsequent price increases (GX 467), quickly turned the electric utilities to aluminum. Thus, in 1950 only 6.5 percent of additions to insulated overhead distribution lines were of aluminum conductor, but by 1959 77.2 percent were being constructed with aluminum (GX 468). In the latter year, 61 million pounds of insulated aluminum conductor wire and cable were shipped by domestic producers (GX 436).

Accordingly, by 1958, the year prior to the merger, a substantial business had developed in the production of aluminum conductor wire and cable. Alcoa, though it no longer enjoyed the monopoly it had held at the end of World War II, remained the leading producer with 27.8 percent. The sharp decline in Alcoa's market share was in part the result of federal governmental programs. As an adjunct to the relief in the government's antitrust suit, and also to create needed additional capacity, Kaiser Aluminum and Chemical Corporation (Kaiser) and Reynolds Metals Company (Reynolds) were given various forms of assistance in constructing profitable enterprises in the primary aluminum field—including sales of Government surplus facilities at bargain prices, guaranteed supply contracts, and rapid tax write-offs. Olin Mathieson Chemical Corporation (Olin Mathieson) and Anaconda Wire and Cable Company (Anaconda)

were also beneficiaries of such tax write-offs. See *United States* v. *Aluminum Co. of America,* 91 F. Supp. 333, 353, *et seq.* (S.D.N.Y.); *United States* v. *Aluminum Co. of America,* 153 F. Supp. 132 (S.D. N.Y.). In 1958 Kaiser ranked behind Alcoa in aluminum conductor shipments with 23.1 percent; followed by Anaconda, 15.8 percent; Reynolds, 10.4 percent; General Cable Corporation, 6 percent; and Olin Mathieson, 4.5 percent. All of these except General Cable were producers of primary aluminum,[2] and the five integrated producers accounted for 81.6 percent of total aluminum conductor production. Four non-integrated producers—General Cable, Essex Wire Corporation (4.5 percent); Southwire Corporation (2.3 percent); and Rome (1.3 percent)—accounted for another 14.1 percent, leaving 4.3 percent for all others (GX 434).

In the field of insulated aluminum conductor, the pattern is similar. Kaiser, the largest, accounted for 26.8 percent in 1958; Anaconda, 16.9 percent; Alcoa, 11.6 percent; General Cable, 9.5 percent; Essex, 6.1 percent; Olin Mathieson, 5.3 percent; Reynolds, 4.8 percent; Rome, 4.7 percent; and Southwire, 2.5 percent. Thus the five integrated producers (Kaiser, Anaconda, Alcoa, Olin Mathieson, and Reynolds) accounted for 65.4 percent; the four listed independents accounted for another 22.8 percent. This left 11.8 percent for all others—twenty other producers, according to the court's findings—a number of whom

[2] General Cable is related, through stock ownership and common directors, to a primary aluminum producer (Tr. 1877, 1897–1900).

are but marginally in the field (compare GX 436 with AR 5).

As insulated aluminum conductor gained in popularity, Alcoa, which formerly had the entire aluminum conductor field to itself, found itself without the insulating skills necessary for full development of this market. At first, Alcoa hired insulating "know-how," through a 1952 tolling arrangement with Rome whereby the latter, which was just entering the insulated aluminum field, undertook to insulate or cover bare aluminum conductor supplied by Alcoa. In 1957, however, Alcoa began to fear that some of its competitors might be outdistancing it in the insulated aluminum field to the detriment of its entire aluminum conductor business. In that year Olin Mathieson acquired Southern Electrical Corporation, an independent wire and cable fabricator which in the previous year accounted for 8.1 percent of aluminum conductor wire and cable shipments and 6.1 percent of insulated aluminum conductor shipments (Fdgs. 47 and 48, App. B; GX 434, 436); and Kaiser acquired the Bristol, Rhode Island wire and cable plant of the U.S. Rubber Company.[3]

Alcoa believed its "No. 1 spot" in the aluminum conductor field to be endangered by Kaiser, especially after the Kaiser-Bristol merger (GX 161, GX 168). Though its business in insulated aluminum conductors was growing (4,349,000 pounds in 1955 and 5,970,000 pounds in 1958, GX 436), Alcoa could not offer customers a full line of its own insulated products, both

[3] The government has filed suit to invalidate this merger under Section 7 of the Clayton Act, Civil No. 2795, D. R.I.

aluminum and copper, as could certain of its competitors. In order to increase its insulated aluminum capabilities and develop insulated copper capacity, Alcoa considered both internal expansion and acquisition of a rival firm. Anticipating that the former course would present substantial difficulties and that five to ten years would be required before Alcoa would achieve its desired position (GX 161, Tr. 2026–2027), it decided to proceed by acquisition. In October 1957, it offered $24 million in Alcoa stock for Rome Cable Corporation (GX 165). In the words of one Alcoa executive:

> Rome Cable, with its fine personal [*sic*] and in general excellent "know-how", is by far the best acquisition, in my opinion, that Alcoa could hope to find. The step would be the answer to the present Kaiser threat to push Alcoa out of first place in the electrical conductor field. [GX 161.]

When Rome refused this offer, Alcoa attempted to acquire other independent wire and cable fabricators, but these efforts, too, came to nought (GX 398–406). By the fall of 1958, its plans for acquisition apparently having failed, Alcoa was prepared to expand on its own in insulated conductor; its president ordered the development of plans for "a rounded out program well beyond the neoprene stage * * * to keep us in the No. 1 spot in the aluminum conductor field and, if necessary, a sufficient factor in the copper field to help us maintain the No. 1 position in the aluminum field" (GX 168).

This program was never executed, for in early 1959 Alcoa's second attempt to acquire Rome proved successful. On March 31, 1959, 355,226 shares of Alcoa common stock (the value of which ranged in 1959 from $27 million to $47 million) were exchanged for all the assets of Rome (Fdg. 6, App. B; GX 16), and Rome has since been operated as a wholly-owned Alcoa subsidiary (Fdg. 4, App. B).[4]

3. Proceedings below

The government's complaint, filed April 1, 1960, charged that the acquisition violated Section 7 of the Clayton Act, because of its impact upon competition in various conductor and accessory product lines. Pending final adjudication on the merits, the district court enjoined Alcoa from encumbering the stock of its Rome subsidiary, and from further transferring operations from Rome to any other plants of Alcoa. At trial, the government claimed that the forbidden anti-competitive effect would be felt in ten "lines of commerce", but only two are involved in this appeal: aluminum conductor (consisting of both bare and insulated types) and insulated aluminum conductor.

After trial, in an opinion dated January 28, 1963, the district court dismissed the complaint. The court concluded that aluminum conductor and insulated aluminum conductor were not appropriate submarkets for assessing the impact of the merger, and that in

[4] The transfer was accomplished through the formation by Alcoa of a subsidiary corporation, the Rome Cable Corporation of Delaware, to which was transferred all of the assets, business and good will of the Rome Cable Corporation of New York. The New York corporation was thereafter liquidated.

any event the merger lacked the prohibited anti-competitive effect in any line of commerce.

In rejecting insulated aluminum conductor as a line of commerce, the court noted that it is functionally interchangeable with its copper equivalent, their respective purchase and use being dictated principally by economic factors, and that the insulated aluminum product is not recognized in the industry as a separate economic entity, has no distinct customers, and lacks specialized vendors (App. A, 15a–16a). Although finding that the aluminum and copper products sell at different prices and that these prices are not sensitive to one another, the court concluded that insulated aluminum conductor is "in actual competition with its copper counterpart", and therefore could not be considered a "line of commerce" (App. A, 16a). And since aluminum insulated is, along with bare aluminum, one of the two components which make up the aluminum conductor category, the latter, too, was denied the status of a "line of commerce" (*ibid.*).

Turning to the issue of competitive effect, the district court found that Alcoa's purpose in acquiring Rome was to secure the special competence which Rome had developed in the insulated cable field and which Alcoa admittedly lacked (App. A, 21a); that the concentration of about 80 percent of the aluminum cable market in the five integrated producers "loses its significance when it is realized that the production of aluminum and the fabricating of its products were concentrated to the point of a monopoly less than twenty years ago and has undergone a gradual decentralization by the entry of new producers and fabri-

cators since that time" (App. A, 22a–23a); and that acquisitions in the aluminum cable field by other integrated producers, which preceded and followed the Alcoa-Rome merger, do not constitute a "significant pattern or trend of merger", especially in view of the post-merger declines suffered by the merging parties. (App. A, 23a; Fdg. 46, App. B.)

The court found no serious barriers to entry in the insulated aluminum market, noting that the number of producers had increased in ten years from four to twenty-nine, and that most of the new entrants had come from the copper field (App. A, 24a). It also relied upon the absence of any complaints concerning the "actual or potential effect of the acquisition upon suppliers and purchasers," and upon testimony from certain aluminum cable competitors and purchasers that no adverse effect had been felt (App. A, 27a–28a). In addition, the court took into account the declining market shares held by Alcoa, both before and after the Rome acquisition,[5] a decline in the rate of return on Alcoa's invested capital, and an increase in number and market position of other primary aluminum producers and cable fabricators, concluding that Alcoa does not enjoy a "dominant" position.

[5] In 1958, the year prior to the acquisition, Alcoa had 27.8 percent of aluminum conductor wire and cable shipments and Rome 1.3 percent; in 1961, the combined Alcoa-Rome share was 24.8 percent. In 1958, Alcoa had 11.6 percent and Rome 4.7 percent of insulated or covered aluminum conductor wire and cable; in 1961, Alcoa-Rome accounted for 13.0 percent (App. A, 25a).

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THE QUESTION~~S~~ ~~ARE~~ SUBSTANTIAL

1. This case presents an important question involving the application of Section 7 of the Clayton Act to a merger of substantial companies in an oligopolistic industry. The government's position is this: in an industry already characterized by a high degree of concentration, the acquisition by the leading company of one of its few substantial independent competitors is a violation of Section 7, for in that setting, the effect of such an acquisition necessarily "may be substantially to lessen competition." The district judge's contrary "finding" rested upon an erroneous interpretation of the statute, which this Court is free to correct.

A. In the case at bar, all of the elements which combine to spell out an offense under a correct interpretation are established by the record.

(a) *The industry is highly concentrated.* In 1958, the year before the merger, five vertically integrated aluminum companies accounted for 81.6 percent of the production of aluminum conductor wire and cable, and these companies, plus four independents (including Rome), accounted for 95.7 percent. Among the remaining companies whose production statistics appear in the record,[*] none produced as much as one percent. In the aluminum insulated line, the five

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[*] The Central Cable Corporation supplied the Department of Justice no information on its shipments, either of aluminum conductors or aluminum insulated. It is believed, however, that this company, which was acquired early in 1963 by Aluminum Ltd. of Canada (*infra*, p. 18), was a substantial fabricator in both lines (Tr. 120–121, 712).

integrated companies accounted for 65.4 percent, and the top four independents whose production statistics appear in the record added another 22.8 percent. We may point out, by way of comparison, that in *United States* v. *Bethlehem Steel Corp.*, 168 F. Supp. 576, 584 (S.D.N.Y.), Judge Weinfeld found the iron and steel industry "highly concentrated" because twelve integrated producers accounted for 83 percent of industry capacity. And in *Brown Shoe Co.* v. *United States*, 370 U.S. 294, 300, this Court noted the district court's finding that a small number of shoe manufacturers "occupied a commanding position" in that the top four produced approximately 23 percent of the nation's shoes.

(b) *The acquiring company, Alcoa, was the leading producer.* Though it ranked third in the field of insulated aluminum conductor, with 11.6 percent of total production, Alcoa was the leader both in bare aluminum conductor, with 32.5 percent, and in aluminum conductor, generally, with 27.8 percent (GX 434-436; Fdg. 45(a), App. B). This is not a case in which two small companies combined in order to compete more effectively with larger corporations dominating the market. See *Brown Shoe*, 370 U.S. at 331. Indeed, the avowed purpose of the present acquisition was to protect that "No. 1 position" by securing for it the facilities, technical skills, and full product line which Rome had developed in the insulated field—assets and capabilities which it would have taken Alcoa five to ten years to develop through its own efforts.

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(c) *The acquired company, Rome, was a thriving and substantial enterprise.* Rome, one of the five leading non-integrated fabricators of aluminum wire and cable products, shipped in 1958 products having an aluminum content of 2,948,000 pounds, 1.3 percent of the aluminum conductor total (GX 434); and its share of the insulated aluminum conductor market was 4.7 percent (GX 436). A pioneer in the field of aluminum insulation, Rome offered a broad line of high-quality wire and cable products, and its technical "know-how," experienced marketing organization, and active research program had earned it an outstanding reputation in the industry. In short, it was precisely the sort of competitive factor which Congress, in amending the Clayton Act, sought to preserve. See H. Rep. No. 1191, 81st Cong., 1st Sess., p. 8; *Brown Shoe Co. v. United States,* 370 U.S. 294, 321.

In these circumstances, the effect of Alcoa's acquisition of this important independent firm "may be substantially to lessen competition" within the meaning of Section 7. This conclusion is borne out by the legislative history of the 1950 amendment. According to the House Report, the forbidden effect of "lessening competition" may be demonstrated by a showing that the acquisition has eliminated an enterprise which had been "a substantial factor in competition." H. Rep. No. 1191, *supra; Brown Shoe, supra,* 370 U.S. at 321, fn. 36. There can be little doubt that Rome, one of ten companies whose share of the aluminum conductor market exceeded one percent, fits that description.

The dominant theme pervading the legislative history of the 1950 amendments to Section 7, as this Court explained at length in *Brown Shoe,* was the concern of Congress to stem what it considered to be a "rising tide of economic concentration in the American economy." *Id.* at 315. Congress sought to arrest the formation of further oligopolies "with their attendant adverse effects upon local control of industry and upon small business," and thereby to preserve an "economic way of life" in which numerous independent units might compete. *Id.* at 333. The acquisition of an important independent fabricator by the nation's largest producer of primary aluminum and aluminum conductors, in lines of commerce dominated by a small handful of such integrated producers, is plainly inimical to these legislative ends. In *Brown Shoe,* this Court affirmed the decision of the district court striking down a merger in the retail shoe industry, a highly fragmented line of commerce composed of 70,000 retail outlets, of which 22,000 were "shoe stores" in the ordinary sense (370 U.S. at 300); in many cities, the combined market share of the acquired and acquiring companies did not exceed 5 percent, and the effect of the acquisition was to give the acquiring company control over only 7.2 percent of the nation's retail "shoe stores." (*Id.* at 343, 345.) It would be strange indeed to find that Congress had barred acquisitions in fragmented industries on the ground that they might constitute a step on the road to oligopoly, yet at the same time

tolerated more substantial acquisitions the effect of which was further to consolidate the power of a dominant firm in an already oligopolistic industry structure.

Moreover, the present acquisition did not stand alone. It is worth pointing out, though not essential to our argument, that the absorption of this non-integrated fabricator was one of five such acquisitions by producers of primary aluminum since 1957. In that year, Olin Mathieson acquired the Southern Electrical Corporation, then the largest independent manufacturer of aluminum conductor (GX 434; Defendants' Answer to Plaintiff's Interrogatory (47-48); and Kaiser acquired the Bristol, Rhode Island, plant of the U.S. Rubber Company, one of the top ten in the insulated aluminum field. These moves, and the threat they were thought to pose, were specifically identified as factors influencing Alcoa's 1959 decision to acquire Rome (GX 150; GX 161; Tr. 2028-29.) And it was partly in response to the three prior acquisitions, that Reynolds, in 1961, acquired the wire and cable facilities of John A. Roebling's Sons Division of the Colorado Fuel and Iron Company, a small fabricator (GX 387, 396). Finally, in February 1963, too late to be noted in the record below, Aluminum Ltd. of Canada announced the acquisition of Central Cable Corporation, one of the largest of the independents (see p. 14, *supra*, fn. 6). As a result of this series of mergers, there now remain only four non-integrated fabricators [7] of aluminum conductor whose individual shares of total industry production (based on 1959 figures, the latest in the record)

[7] The four are General Cable Corp., Southwire Company, Essex Wire Corp., and Nehring Electrical Works.

amounted to more than one percent. And since Harvey Aluminum Company, another primary producer, is presently considering entry into the conductor field through the acquisition of an existing manufacturer (Tr. 873–874), it seems likely that the ranks of the independents will soon be further depleted, if the decision below is allowed to stand. In sum, the aluminum conductor industry is experiencing precisely that process of creeping concentration which the amended Section 7 was designed to thwart, and which was described in the Senate Report on the bill (S. Rep. No. 1775, 81st Cong., 2d Sess., p. 5, quoted in *Brown Shoe,* 370 U.S. at 333–334):[8]

> Under the Sherman Act, an acquisition is unlawful if it creates a monopoly or constitutes an attempt to monopolize. Imminent monopoly may appear when one large concern ac-

[8] The same point was stressed by Mr. Justice Douglas in his dissenting opinion in *United States* v. *Columbia Steel Co.*, 334 U.S. 495, 534–535: "This is the most important antitrust case which has been before the Court in years. It is important because it reveals the way of growth of monopoly power—the precise phenomenon at which the Sherman Act was aimed. Here we have the pattern of the evolution of the great trusts. Little, independent units are gobbled up by bigger ones. At times the independent is driven to the wall and surrenders. At other times any number of 'sound business reasons' appear why the sale to or merger with the trust should be made * * *. We have here the problem of bigness. Its lesson should by now have been burned into our memory by Brandeis. *The Curse of Bigness* shows how size can become a menace—both industrial and social. It can be an industrial menace because it creates gross inequalities against existing or putative competitors * * *." It was *Columbia Steel* and its demonstration of the inadequacy of existing law to cope with mergers that spurred Congress to enact the 1950 amendment to the Clayton Act (see *Bowrn Shoe*, pp. 318–319, fn. 33).

quires another, but it is unlikely to be perceived in a small acquisition by a large enterprise. As a large concern grows through a series of such small acquisitions, its accretions of power are individually so minute as to make it difficult to use the Sherman Act test against them * * *.

Where several large enterprises are extending their power by successive small acquisitions, the cumulative effect of their purchases may be to convert an industry from one of intense competition among many enterprises to one in which three or four large concerns produce the entire supply. S. Rep. No. 1775, 81st Cong., 2d Sess. 5. And see H. R. Rep. No. 1191, 81st Cong., 1st Sess. 8.

B. Though the district court gave attention to many of the factors mentioned in *Brown Shoe,* it reached a result wholly at variance with the congressional policy explained therein. The court below did not dispute the underlying facts relied upon by the government, *e.g.,* that five integrated producers accounted for more than 80 percent of the aluminum conductor market; rather, its error lay in the failure to perceive that these facts themselves established that the effect of this merger may be substantially to lessen competition. Whatever may be the significance of the factors upon which the court relied (the principal ones of which are discussed below) in testing the validity of a merger of competitors in a less concentrated industry, they cannot serve to validate the elimination of one of the few remaining competitors in this oligopolistic market.

The court took the position—erroneously, we submit—that the government's concentration data were without significance because the production of aluminum and the fabricating of its products "were concentrated to the point of monopoly less than twenty years ago" and have "undergone a gradual decentralization by the entry of new producers and fabricators since that time." This overlooks completely the fact that it was action by the federal government, not the forces of the market, which broke up Alcoa's monoppoly and brought about this "decentralization" (see pp. 7-8, *supra*). It would be a remarkable outcome if Alcoa's long history as a monopolist—a status which was judicially terminated only two years before this acquisition—were now deemed a mitigating factor.[9]

Similarly, the court noted that whereas there were four fabricators of insulated aluminum conductor in 1951, the number had risen to twenty-nine as of April 1, 1961 (App. A, 23a). This statistic loses significance, however, when it is observed that in 1959, the latest year for which figures are available, only eleven of the twenty-nine companies referred to by the court (listed in AR 5) produced as much as one percent of the insulated aluminum total;[10] only four others had

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[9] In view of the fact that from 1945 to 1957 the scope of relief to be given in the government's antitrust suit against Alcoa had not been finally determined, and could have included divestiture or dissolution, it is not surprising, as the district court noted, that Alcoa had "no history of acquisitions or mergers" or of "forbidden anti-competitive practices" (App. A, pp. 23a and 29a).

[10] Ten companies, each accounting for one percent or more of the insulated aluminum total in 1959, are listed in GX-436. It is assumed that Central Cable Co., regarded in the industry

as much as two-tenths of one percent;[11] five others were, by the time of trial, out, or "almost completely out," of the field;[12] and five others did not make overhead conductors at all, but only specialty items.[13] A directory of producers shows only one fabricator in 1961 which was not also listed in 1955, other than those which acquired existing firms (GX-442). These facts also dispel the significance of the court's finding that there is "ease of entry" in this industry. The possible entry of new firms is important only if the character of the industry is such that new firms are likely to appear, and to become as important competitors as the firm being eliminated. In this industry, however, most of the newcomers have been able to acquire only inconsequential shares of the market. In such circumstances, it would seem that: (1) substantial firms are unlikely to venture into a field which holds such slim prospects of success; and (2) even if they do, they are unlikely to develop to a point where they will be effective substitutes for the firm whose independence has been terminated.

The court further "found" that the four acquisitions of aluminum conductor fabricators by primary aluminum producers (the fifth, by Aluminum Ltd. had not yet been announced; *supra*, p. 18) did not amount to a "significant pattern or trend of mergers" (Fdg. 46, App. B)—chiefly because the combined market

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as a substantial producer, also produced one percent or more in that year. See fn. 6, *supra*.

[11] GX-436.

[12] Tr. 491-492, 433-434, 777-779, 799, 992-995.

[13] Defendants' Answer to Plaintiff's Interrogatories, Table 11.

shares of the acquired and acquiring companies in each case declined after the merger (Fdg. 48; App. B). The short answer is that the significance of this series of acquisitions does not lie in short-run increases in the market shares of the particular acquiring companies, or even of integrated companies generally, but in the fact that each combination (except the Reynolds-Roebling) eliminated one of the few substantial independent competitors. In any event (as we have already observed, *supra*, pp. 17–18), in an industry already acutely concentrated, it is not essential that the government establish a "trend" toward further centralization in order to defeat a substantial merger. In such an industry a substantial merger would be unlawful even if the tide of concentration had receded.

The court below, having concluded that the concentration data were without significance, then went on to consider other factors mentioned in *Brown Shoe, e.g.,* the purpose of the merger (App. A, 21a), and the lack of evidence of specific injury to suppliers, purchasers or remaining independent fabricators (App. A, 27a). These factors are undoubtedly important in gauging the effect, particularly the incipient effect, upon competition of questionable mergers in fragmented industries. But they cannot vindicate this acquisition. In enumerating "some of the factors, relevant to a judgment as to the validity of a given merger" (370 U.S. at 316), this Court obviously did not intend that enumeration to be used as a mechanical checklist with which to total up points

for and against an acquisition. Not all of the factors mentioned by the Court are of equal weight; nor is their relative weight the same in all situations. Where, as in this case, an acquisition takes place in a highly concentrated industry (*Id.* at 322) and eliminates one of the few significant competitors therein, these facts alone demand the conclusion that industry competition may be substantially lessened.

2. This case also presents an important question as to the proper standards for defining the relevant product markets within which to examine the effects of an acquisition. The court below determined that bare aluminum conductor was an appropriate line of commerce. However, the court also determined that neither (1) insulated aluminum conductor nor (2) aluminum conductor was a "line of commerce" within the meaning of Section 7. In so concluding, it misapplied the guidelines laid down by this Court in *Brown Shoe* and rendered uncertain the criteria for resolving an issue which lies at the threshold of every Section 7 case.

In holding that insulated aluminum is not a submarket competitively distinct from its copper counterpart, the court below ticked off the "practical indicia" listed in *Brown Shoe*, noting that producers do not regard the aluminum product as "a separate economic entity"; that the same equipment and personnel can be utilized to produce either the copper or aluminum product; that both are sold to the same customers; that there are no specialized vendors; and that, as a technical matter, the insulated copper product can

be utilized wherever aluminum insulated is used. On the other hand, the court recognized that in the only application for which insulated aluminum cable is widely used—overhead distribution lines—the customers make their purchases solely on the basis of economic factors; that the aluminum product is sold at prices distinct from copper; and that there is little price sensitivity between them. These latter factors, however, which we regard as decisive, were dismissed by the court on the ground that they did not destroy the conclusion "that covered aluminum wire and cable is in actual competition with its copper counterpart and may not be found as a line of commerce herein" (App. A, 16a). Apparently, therefore, the court considered that a finding that two products are "in actual competition"—without considering the degree of competition—necessarily precludes a ruling that either constitutes a "line of commerce." This represents a clear misunderstanding of the *Brown Shoe* decision.

In *Brown Shoe* the Court carefully pointed out (370 U.S. at 325) that while the outer boundaries of the product market must be broad enough to embrace all reasonably interchangeable substitutes, within these boundaries there may exist well-defined submarkets which are themselves "lines of commerce." This means, obviously, that two or more products—*e.g.*, insulated aluminum cable and insulated copper cable—though sufficiently competitive to be grouped together within a single product market, may at the same time be sufficiently noncompetitive to be treated as distinct submarkets; in other words, that degree of competitiveness which serves to justify the inclusion of

several items in the same line of commerce does not necessarily preclude their division into separate lines. The district court plainly failed to appreciate this point, for it characterized (App. A, 16a–17a) as an "inconsistent position" the government's contention that "insulated aluminum wire and cable is a line of commerce and therefore competitively distinct from insulated copper but * * * that insulated aluminum and insulated copper constitute a single line of commerce." If the court's view were correct, the distinction drawn by this Court between broad product markets and lesser included submarkets would be completely obliterated.

Had the court applied the proper standard, it could not have failed to recognize insulated aluminum conductor as a line of commerce distinct from the copper product. For most purposes, insulated aluminum is so inferior to insulated copper that it enjoys virtually no commercial acceptance.[14] In the conduction of electricity in overhead distribution lines, however,

[14] For example, aluminum has no significant usage in underground cable (GX 468), telephone or communications cable (TR. 1910), automotive wiring (Tr. 395–96), appliance wire and other flexible conductors (GX 267, GX 378, Tr. 398, 495–96, 1912), switchboard cable (Tr. 774–75), portable power cable (GX 375, Tr. 773), control cable (Tr. 773–74), fine wire (Tr. 772, 799, 1910–11), shipboard cable (Tr. 770–71), magnet wire (AR 18, Tr. 399, 798–800, 1226), missile cable, transformer wiring, instrumentation cable, street lighting cable, machine cable, signal cable, dredge cable or radio hook-up wire (AR 18, Tr. 1226). In the field of building wire, aluminum has achieved only a very limited acceptance, largely confined to the larger sizes of building wire in very large buildings. It is not considered as a significant factor in the building wire market (Tr. 399, 419, 492–94, 770).

aluminum has gained wide acceptance. In that application it is functionally interchangeable with insulated copper, but enjoys a decisive economic advantage because primary aluminum is much cheaper than primary copper and, pound for pound, will carry twice as much electricity. Consequently, aluminum has dramatically displaced copper in insulated overhead distribution lines; its share of total annual installations has increased from 6.5 percent in 1950 to 77.2 per cent in 1959 (the last year for which statistics were available at the trial) (*supra*, p. 7). As of the date of the merger, therefore, "actual competition" between the two metals in the field of overhead distribution was rapidly disappearing—just as it had already disappeared in the field of overhead transmission, where bare aluminum, having almost completely displaced bare copper, was conceded by Alcoa and found by the court to be a distinct line of commerce. It is axiomatic that Section 7 demands an assessment of future, as well as present, conditions of competition. *Brown Shoe*, 370 U.S. at 332–333.

To the extent that it still exists, competition between the copper and aluminum insulated conductor is extremely tenuous. Utilizing a high-cost metal, fabricators of insulated copper cable are powerless to eliminate the price disadvantage under which they labor and thus are not in a position to compete effectively in the overhead distribution field. Furthermore, so wide is the price differential between the two insulated products that a relatively large increase in the price of aluminum conductor would be necessary before a significant number of customers would shift

back to copper.[15] Accordingly, the availability of a copper substitute exerts little, if any, restraint upon the power of the aluminum cable manufacturers to raise the price of their product. In light of these considerations, it seems clear that insulated aluminum wire and cable is a realistic and economically significant submarket within which to appraise the impact of the acquisition upon competition.

It necessarily follows that aluminum conductor is a relevant market. Plainly, it accords with the commercial realities of the electrical industry to combine the bare and insulated types of cable in the same line of commerce, since both are used for the same broad purpose of conducting electricity, and both are sold to the same customers, the electrical utilities. And indeed the court so found (Fdg. 31, App. B). There remains only the question whether aluminum conductor can be separated from copper conductor. The same physical characteristics and cost considerations which differentiate the two insulated product lines also differentiate the broader conductor lines. Having found that bare aluminum is a distinct submarket, the court denied that status to aluminum conductor only because it determined the other component—insulated aluminum—to be inseparable from its copper equivalent. Since that premise is unfounded, there

[15] As of January 1, 1961, the prevailing price of a representative size of polyethelene insulated aluminum weatherproof wire was $73.50 per thousand feet; polyethelene insulated copper of equivalent conductivity cost $115.83. Comparable figures for a representative polyethelene insulated service cable were: aluminum $114.00; copper $206.00. (Defendants' Answer to Plaintiff's Interrogatory 61.)

can be little doubt that aluminum conductor, like its two components, is a distinct line of commerce.

Contrary to the district court's belief, *Brown Shoe* is no barrier to these conclusions. There the appellant's contention was that the district court had erred by delineating the relevant submarkets (men's shoes, women's shoes, and children's shoes) too broadly and should instead have subdivided them further on the basis of price and quality differences. It was in response to that contention that this Court made the statement, cited by the court below (App. A, 16a), that the boundaries of the relevant market must be drawn with sufficient breadth to include all competing products. By this statement, the Court indicated its approval of broad lines of commerce encompassing all reasonably competitive substitutes, but it did not thereby rule out less inclusive submarkets as well. This is not to say that the Court would have sanctioned further subdivision of the market in *Brown Shoe* itself; on the contrary, it characterized as "unrealistic" Brown's contention "that, for example, men's shoes selling below $8.99 are in a different product market from those selling above $9.00." (*Id.* at 326.) Thus the Court pointed up the lack of realism in any effort to put shoes into different "lines of commerce" where the difference in price might be as little as one cent per pair. In sharp contrast, insulated aluminum wire and cable, used in overhead distribution, is significantly cheaper than its copper equivalent. In most cases, insulated aluminum distribution cable sells at 50 percent to 65 percent of the price of the copper counterpart (Defendants' Answer

to Plaintiff's Interrogatory 61). Moreover, the purchaser of shoes selects among available alternatives with an eye not only to price but also to quality, style, and the intangible factor of how much of his income he chooses to spend on shoes; hence, two consumer products may be highly competitive, though disparate in cost. By contrast, a public utility's selection between insulated aluminum and insulated copper cable for use in overhead distribution lines is based almost exclusively on economic considerations, so that any significant differential in price is bound to reduce drastically the degree of competition, as in fact it did here. To put price to one side, as the district court did, is to ignore the single most important practical factor in this business—a result surely not consonant with this Court's decision in *Brown Shoe.*

CONCLUSION

The question~~s~~ presented by this appeal ~~are~~ is substantial and of public importance. Probable jurisdiction should therefore be noted.

Respectfully submitted.

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JUNE 1963.

APPENDIX A

United States District Court
Northern District of New York

Civil No. 8030

UNITED STATES OF AMERICA, PLAINTIFF
against
ALUMINUM COMPANY OF AMERICA AND
ROME CABLE CORPORATION, DEFENDANTS

ANTITRUST ACTION—VIOLATION OF SECTION 7,
CLAYTON ACT

Tried Feb. 5–Mar. 1, 1962; Submitted Aug. 18, 1962;
Decided Jan. 28, 1963

Opinion

BRENNAN, *Judge:*

This is a civil antitrust action brought by the United States against the Aluminum Company of America, hereinafter referred to as "Alcoa" and the Rome Cable Corporation, hereinafter referred to as "Rome" to annul the acquisition by Alcoa of the stock and assets of Rome.

The complaint in this action was filed April 1, 1960 and charges that the acquisition, above referred to, is in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18. The complaint seeks the usual relief in this type of case—to wit: an order of divestiture and injunction against further acquisitions and such other and further

relief as may be just and proper. Defendants' answers, while admitting certain allegations of the complaint, deny that the transaction involved is in violation of the statute. No question is raised as to the jurisdiction of this court.

On March 31, 1959, pursuant to a prior agreement, Alcoa acquired all of the assets of Rome by an exchange of stock of the two corporations. Title to the assets of Rome was taken in a newly formed corporation also known as the Rome Cable Corporation. The new company is a wholly owned subsidiary of Alcoa and, since the acquisition, has been operated as a division thereof. The crux of the litigation arises from plaintiff's contention that the effect of such acquisition may be substantially to lessen competition or tend to create a monopoly in certain lines of commerce consisting principally of wire and cable products—all in violation of Section 7 of the Clayton Act.

Brief reference is made at this point to the defendants and the general nature of their business activities in order to afford an insight into the more detailed discussions to follow.

Alcoa is a fully integrated aluminum producer. In the manufacturing process, it refines aluminum bearing ore into primary aluminum and converts same into intermediate and various aluminum end products. It manufactures such products in several states and sells and ships same in various forms throughout the United States and in foreign countries.

Rome was incorporated in 1936. It was and is primarily engaged in the manufacture of wire and cable products in which copper was and is the predominant metal used in its operations. In 1952 Rome installed equipment for the manufacture of aluminum rod from aluminum ingot purchased from primary producers. It began producing such rod for its own use in 1953.

Thereafter it began to manufacture and sell certain types of aluminum wire and cable in addition to its broad line of copper products.

THE LAW

Before proceeding to discuss Alcoa's and Rome's position in the markets in which they are active participants, it would seem logical to refer briefly to the legal principles involved. An understanding of the language and purpose of the statute is essential as an approach is made to the decision which must necessarily involve the recognition of the prohibitions imposed and the application of same to the facts disclosed.

The basis of this action rests upon the provisions of Section 7 of the Clayton Act, 15 U.S.C. § 18, the relevant part of which is quoted below.

> No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

The language of the above statute, taken alone, poses problems both in its construction and application. The courts have proceeded upon a case-to-case basis to construe and apply the statute to the facts of a particular litigation. It seems fair to state that the law involved is still in a state of development and that no formula, possessing rigidity, may be applied. This is necessarily so since the statute deals with reasonable probability in the constantly changing economy in which we live.

The recent decision of the Supreme Court in *Brown Shoe Co.* v. *U.S.,* 370 U.S. 294, is, as stated therein, the first case coming before that court wherein an analysis of the scope and purposes of the statute, as it now exists, was necessary to the issue raised. It would seem to follow that reference to the holdings in that decision would be more profitable than to discuss how far the previous landmark decisions under the Sherman Act are applicable or to reconcile or distinguish decisions of circuit and district courts which had decided Section 7 cases prior to the *Brown Shoe* decision. The most often quoted decisions, referred to above, are either cited or are found in the notes in the Brown Shoe opinion and their application may be gathered from the text thereof.

The legislative history of the statute is discussed in the above *Brown Shoe Co.* decision and does not require repetition here. Such discussion appears to confirm some previously stated purposes of the statute and sets at rest certain controversies relative to the meaning and application thereof. This court's understanding thereof is summarized below and the quotations therein are, unless otherwise indicated, taken therefrom.

Congress considered that ". . . a rising tide of economic concentration in the American economy" was an evil to be curbed. Effective competition and the protection of small businesses were results to be accomplished. The statute was intended to supply a deficiency in the existing statute and to apply to all types of mergers. Its purpose was to curb monopolistic acts at their beginnings or incipiency rather than await their fruition and the standards for judging their legality are broader than, but may include, those applied in Sherman Act violations. All mergers however are not to be condemned. Con-

demnation is limited to those having "demonstrable anticompetitive effects" although such demonstration is satisfied by a probability. Certainty is not required. Proof of probability is sufficient provided the menace to competition is clear-cut as distinguished from a temporary condition or an "ephemeral possibility". No particular tests are provided in the statute to measure either the product or geographic market. Neither are qualitative or quantitative tests controlling in measuring the effect of a merger. Both measurements must be made in the light of all the relevant factors which may vary in accordance with the facts of the particular acquisition under consideration.

In addition to the above summary of the discussion of the legislative history as gathered from the opinion in the *Brown Shoe* case, the decision therein, in its holdings seems to otherwise clarify the vagueness of the language of the statute and afford something of a guide to the trial courts in their application to the facts of the litigation before them.

The lines of commerce or product market may consist of both broad and submarket lines. No rigid formula exists for their determination. The realities of competition are the ultimate test. The broad market line may be extended to cover a product where there exists "the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it". Seven "practical indicia" are set forth as factors to be considered in determining the boundaries of a submarket. They are (1) industry or public recognition of the submarket as a separate economic entity, (2) the product's peculiar characteristics and uses, (3) unique production facilities, (4) distinct customers, (5) distinct prices, (6) sensitivity to price changes, and

(7) specialized vendors. The existence or non-existence of each of the above indicia is not determinative of the problem in itself. All relevant facts must be considered and we are admonished "to recognize competition where in fact competition exists". Peculiar characteristics and uses may be one of such indicia but it is not determinative. To be of effective weight, they must be so peculiar as to render the product "non-competitive".

In determining the impact of the merger, the size of the share of the market foreclosed is not decisive unless it approaches monopoly proportions or is of de minimus effect. The market shares held by the merged companies are an index of market power to be applied in all aspects of the realities of competition in "an economically significant market". Mergers may not be condemned per se upon the basis of such shares alone; same "will seldom be determinative". The purpose of the merger is a most important factor as is the existence of trends toward concentration in the industry. The testimony of those engaged in industry has its weight and significance although "It is competition, not competitors, which the Act protects". An evaluation of the competitive realities disclosed, based upon a pragmatic factual approach, would seem to be the obligation of the trier of the facts.

THE INDUSTRY

The litigation involves principally the effect of the merger as tending to lessen competition in certain aluminum product lines of commerce. In the decision of *Brown Shoe Co. Inc.* v. *U.S., supra,* at 321, we find the following quotation: "* * * Congress indicated plainly that a merger had to be functionally viewed, in the context of its particular industry" and at

page 329 the court refers to the examination of "economic and historical factors" as necessary to the decision. It follows that the facts must be weighed and the law applied with some understanding of the industry as a whole and the status of both Rome and Alcoa therein.

The history of the aluminum industry in this country from its beginning to World War II is for all practical purposes a history of Alcoa itself. The economic demands of World War II account for the entry of competing primary aluminum producers, the details of which may be gathered from the lengthy court decisions which involve the position of Alcoa in the business of aluminum production and the sale of aluminum products within the United States. Such details may be gathered from the decisions—*U.S.* v. *Alcoa,* 44 F. Supp. 97; *U.S.* v. *Alcoa,* 148 F. 2d 416; *U.S.* v. *Alcoa,* 91 F. Supp. 333; and *U.S.* v. *Alcoa,* 153 F. Supp. 132. It is sufficient to say that principally due to government action during the above period, Reynolds Metal Company and Kaiser Aluminum and Chemical Corporation shared with Alcoa, then and now, a place in the aluminum industry as fully integrated aluminum producers.

The above corporations are described in their activities as fully integrated in that their facilities permit the processing of the necessary materials from the mine through the intermediate stages to the finished aluminum product. Statistics appear to be first available in the above process when same reaches the primary aluminum stage, so that for all practical purposes we are not particularly concerned with the status of industry prior to the production of primary aluminum. Three additional corporations have since 1955 joined Alcoa, Kaiser and Reynolds as such producers. These corporations—Ormet, Inc. (Olin

Mathieson), Harvey Aluminum Company and Anaconda Aluminum Company, although not as fully integrated as Alcoa, Kaiser and Reynolds, are producers of primary aluminum. The above corporations are in a position to manufacture and sell aluminum billet, pig, ingot and rod which are termed intermediate products. Each of the above corporations, except Harvey, fabricates the intermediate products into numerous finished merchantable items, intended directly for consumer use. Included in such items are the wire and cable products urged as proper lines of commerce in this case. The five above companies, thus engaged in processing intermediate aluminum products, are considered as "integrated producers" as the term is used in this litigation.

An indication of the status of the above companies engaged in producing primary aluminum may be gathered from the exhibit set out below—

Aluminum Ingot Capacity Existing or Under Construction at the End of 1960
[Short tons]

Company	Capacity	Percent of U.S. total
United States total	2,655,750	100.0
Aluminum Company of America	1,025,250	38.6
Reynolds Metals Company	701,000	26.4
Kaiser Aluminum & Chemical Corp	609,500	23.0
Ormet, Inc.	180,000	6.8
Harvey Aluminum	75,000	2.8
Anaconda Aluminum Company	65,000	2.4

The above percentage of total capacity of Alcoa differs slightly from that provided by the defendant which is set at 35%. This may be accounted for by the fact that Alcoa abandoned construction of a plant in Indiana when it was apparent that there was an oversupply of capacity. No doubt production figures are more meaningful than the above since it appears that 15% of Alcoa's primary aluminium capacity was

unused in 1960. Alcoa's percentage of United States primary aluminum for 1960 was 36% of the total supply, having declined 9% from 1956. That Alcoa's percentage of such production has declined over a period of years is self-evident from the entry of new producers as indicated above but it would seem to be fair to say that the three principal producers supply around approximately 80% of such production. The record is indicative of a further increase in domestic aluminum capacity and production, both from the documentary evidence and the oral testimony. This increase would come about by entry of new producers and the increase in production capacity of Alcoa's present competitors.

Only brief reference need be made to the copper industry since it is involved only to a limited extent in this controversy. Copper products are manufactured from an ore from which intermediate products are refined and the end product eventually produced for consumer use. Like aluminum, there are companies which are so integrated as to be able to refine and produce copper products from the original ore to the finished items. Such companies sell intermediate products, such as ingot, to processors or fabricators, who then process same for ultimate use in their final form. There is no contention here that the merger involved has anti-competitive impact in the copper industry as a whole or upon the integrated copper producers or fabricators. No further discussion of the copper industry appears to be necessary.

We now turn to a brief discussion of the industry as it pertains to the particular lines of commerce involved in this litigation. The lines of commerce which are principally litigated here consist of those products capable of conducting electricity and are generally referred to as wire and cable products.

While it is claimed that some of such lines involve both aluminum and copper, emphasis is placed principally upon aluminum wire and cable which are the end products of processing or fabricating an intermediate aluminum product such as ingot into the completed wire and cable which may be of various sizes, electrical conductive capacity and of different weight, size and strength.

There are a large number of firms engaged in the fabrication of wire and cable copper products. There are a lesser number of such fabricators engaged in the business of fabricating aluminum products. As the word "fabricators" is used in this litigation, it is distinguished from the integrated aluminum and copper producers who also fabricate and sell their end products. Upwards of two hundred fabricators are engaged in the manufacture of both aluminum and copper wire and cable products. There is a vigorous competition as to wire and cable between the integrated companies among themselves and between those fabricators whose process of manufacture begins with the intermediate product purchased from a primary aluminum producer. This active competition is also evident as between aluminum and copper wire manufacturers whose product may be used interchangeably. In other words, there is a lively competition between aluminum and copper products in certain areas which is accounted for by the increasing use of aluminum products and the economic factors which apply thereto. Both the aluminum and copper industries are important factors in the present day economic and business life. They maintain effective and costly research departments designed to improve the efficiency of their products and to create new uses therefor. Both the copper and aluminum industry must meet competition at the intermediate manufac-

turing stage from foreign countries or concerns. Canada produces primary aluminum equal to about 35% of the total United States production and supplies a significant portion thereof which is available to this country's fabricators. European producers apparently furnish a small portion of primary aluminum for the use of American fabricators. In view of the above, no shortage in primary aluminum is foreseeable.

THE STATUS OF ALCOA AND ROME IN THE INDUSTRY

Since Alcoa has not been engaged in the manufacture of copper products, its place in the industry, above described, is limited to the production, manufacture and sale of aluminum products. Its position in the aluminum industry is to some extent apparent in the above discussion.

Alcoa still maintains its position as the leading producer of primary aluminum. Its share in that market, as may be expected, has declined sharply since the entrance of competitors in that field. This decline has been reasonably consistent since the newcomers in the field reached productive capacity. In 1948, Alcoa had 52% of United States primary aluminum production. It declined to 45% by 1956 and from 1956 to 1960, it declined to 36%. Its percentage of primary aluminum capacity has declined substantially in the same manner.

Alcoa manufactures and sells a variety of aluminum products. This litigation however involves primarily wire and cable products so that reference to its position in the market will be limited thereto. Alcoa pioneered the use of aluminum as an electrical conductor and sold substantially all of the aluminum cable used for electrical transmission in the United States prior to World War II. Since that time,

Alcoa has encountered increased competition and its relative participation in the above market has declined materially. Its principal products in that field are bare aluminum cable and ACSR (aluminum covered steel reinforced). ACSR is a bare aluminum cable with a steel core primarily used by utilities in the overhead transmission of electric current. Alcoa's share in ACSR and bare aluminum cable declined from 48.4% in 1954 to 32.5% in 1958 and to 26.1% in 1961. Its second principal product is known as aluminum conductor wire and cable. Its share in that product declined from 42.8% in 1954 to 27.8% in 1958 and to 23.5% in 1961. The decline in the above market percentages is reasonably consistent between the dates above mentioned and continuing since the acquisition. Alcoa's third such product is known as aluminum wire and cable, insulated or covered. Its share in that item varied from 10% in 1954 to 11.6% in 1958 and to 7.3% in 1961. The comparatively recent increase in demand for covered or insulated aluminum conductor wire found Alcoa in an unfavorable market position. It manufactured line wire and multiplex cable with a polyethylene insulation or covering but it lacked the know-how and the facilities for the manufacture of the more complicated line of insulated aluminum wire and cable products.

In March 1952 Alcoa and Rome entered into a continuing agreement referred to as a "tolling agreement" whereby Rome would cover or insulate bare aluminum wire with the more complicated insulated constructions. This arrangement broadened the scope of Alcoa's ability to provide insulated wire products to its trade.

As already indicated, Rome was primarily the manufacturer of copper products, including wire and cable. It has been successful in its manufacturing efforts

and expanded same so that at the time of its acquisition it had plants at Rome, New York; Torrance, California; and Collegeville, Pennsylvania. It maintained an active and efficient research department and sales organization. Prior to its acquisition by Alcoa, Rome was one of the ten largest manufacturers of copper conductor wire and cable in the United States. In 1952, Rome installed equipment for the manufacture of aluminum rod from aluminum ingot purchased from primary producers. It began producing such rod for its own use in 1953. Thereafter it began to manufacture and sell certain types of aluminum wire in addition to its broad line of copper products. In the course of its experience and research, Rome developed a special aptitude or skill in the matter of insulating wire and cable. It manufactured a relatively full line of the more complicated insulated wire and cable, designed and built to meet customers' requirements. This skill prompted the so-called "tolling arrangement" between Alcoa and Rome, referred to above.

At the time of the merger, here under consideration, only five products were manufactured and sold by both Alcoa and Rome and their direct competition in the market was limited thereto. These products may be identified as follows—(1) ACSR and bare aluminum cable; (2) covered line wire or weather-proof; (3) multiplex cable; (4) conduit; (5) aluminum redraw rod. The market shares of Rome and Alcoa in these competitive products, generally speaking, were not great and a further discussion of same may better be considered in the discussion of the impact of the merger upon or within the competitive market.

In this type of action, a burden is imposed upon the plaintiff to establish three essential elements, listed below, in order to establish a violation of the statute.

(1) The relevant products markets or "lines of commerce"; (2) the geographic markets within which the impact of the merger may be measured as to each such line of commerce; and (3) the substantial lessening of competition or tendency to create a monopoly in any such line of commerce in the relevant geographic area. The proof as to these elements will be discussed in the order in which they are mentioned above.

LINES OF COMMERCE

The Government offers proof as to ten lines of commerce and contends that each has been established thereby as applicable in this action. The defendants agree that four such lines of commerce are appropriate and disputes the relevancy of the remaining six lines and the sufficiency of the proof to establish same. There is set out below the list of specific products as contended by plaintiff, showing which are agreed upon and those in dispute. The position in which they appear below follows the order of the proof and the order in which they are discussed in the submitted briefs.

Item 1.	Aluminum conductor wire and cable	In issue.
Item 2.	Bare aluminum cable and ACSR	Agreed.
Item 3.	Insulated or covered aluminum wire and cable	In issue.
Item 4.	Aluminum ingot and rod used in the production of aluminum conductor wire and cable.	In issue.
Item 5.	Conductor wire and cable (aluminum and copper)	Agreed.
Item 6.	Conductor wire and cable, bare (aluminum and copper).	In issue.
Item 7.	Wire and cable, insulated and covered (aluminum and copper).	Agreed.
Item 8.	Service drop cable (aluminum and copper)	In issue.
Item 9.	Conduit (aluminum and steel)	Agreed.
Item 10.	Aluminum conduit	In issue.

The Government relies in its brief upon the peculiar characteristics and uses test as the bases upon which a finding of the relevant lines of commerce may rest. This test may find support in such deci-

sions as *A. G. Spalding & Bros. Inc.* v. *F.T.C.*, 301 F.2d 585; *Crown Zellerbach* v. *Federal Trade Commission*, 296 F. 2d 800; and *U.S.* v. *Bethlehem Steel Corp.*, 168 F. Supp. 576, but by the decision in the Brown Shoe case, such test is but one of seven of the "practical indicia" which may serve as a guide in determining submarket lines. Even if so used, such characteristics and uses must be such as to render the product "generally non-competitive".

The consideration and determination of the lines of commerce issue is made having in mind the discussion of the problem in the *Brown Shoe* case and the rules or guides laid down therein and referred to above.

Items 1, 2 and 3 are generally referred to herein as the aluminum conductor lines and are so related as to be discussed together.

Since Item 1 is a rather broad line and is simply a combination of Items 2 and 3, the latter two should first be determined. Item 2, bare aluminum cable and ACSR, is a heavy cable product which has practically displaced copper for use in overhead transmission lines. It is agreed that same constitutes a line of commerce here.

Item 3, insulated or covered aluminum wire and cable, is not a line of commerce because it is not recognized in the industry as a separate economic entity. While differing in some characteristics and preferred uses from its copper counterpart, they both perform the same functions and it is not "generally non-competitive" with copper. The Government's evidence shows in 1959 that insulated copper conductor comprised 22.8% of the gross additions to insulated overhead distribution lines. Both aluminum and copper wire may be produced interchangeably, using the same facilities. Covered aluminum wire has no

distinct customers as distinguished from covered copper wire purchasers. Neither has it specialized vendors. Insulated aluminum and copper wire are generally functionally interchangeable. Their purchase and use are likewise principally dictated by economic factors. While aluminum wire and cable is sold at prices generally distinct from copper and does not have the same price sensitivity, these factors do not destroy the conclusion that covered aluminum wire and cable is in actual competition with its copper counterpart and may not be found as a line of commerce herein. A different conclusion would ignore the admonition, "But the boundaries of the relevant market must be drawn with sufficient breadth to include the competing products of each of the merging companies and to recognize competition where, in fact, competition exists".

Since Item 1 is a broad line embracing both Items 2 and 3 and Item 3 is held not to be a proper line of commerce, their combination cannot result in a line of commerce. To find that Item 1 is a line of commerce extends the outer boundaries of the market beyond its legal limits because covered copper wire and cable is interchangeable in use and there is cross-elasticity of the demand therefor between insulated or covered aluminum and copper. To constitute a proper line of commerce, same must include the substitutes therefor which are reasonably interchangeable in use and for which there is a cross-elasticity of demand.

The above conclusion is fortified by the inconsistent position taken by the Government, at least as far as the vertical aspect of the merger is involved. The plaintiff contends here that insulated aluminum wire and cable is a line of commerce and therefore competitively distinct from insulated copper but agrees as to Item 7 that

insulated aluminum and insulated copper constitute a single line of commerce.

Item 4, aluminum ingot and rod, used in the production of aluminum conductor wire and cable is simply a grade of aluminum generally referred to as E.C. (electrical conductor). It is but one of 173 recognized aluminum alloys which may be manufactured interchangeably at the will of the producer. All six integrated primary aluminum producers produce various of such alloys including aluminum of E.C. grade which is required by industry standards to contain a minimum aluminum content of 99.45%. Generally the standard is met by the addition of a small percentage of boron to "a high purity pig". The purifying boron however may be added to the ingot during the course of the fabricating process. The rod represents a further product in the reduction of the ingot to the desired wire or cable size. It results from a continuing casting and rolling process and assumes a form or shape which is the starting point for most wire fabricators in their operation.

Although it may be doubtful that ingot and rod of the E.C. grade should be fragmented from the many aluminum alloys, it seems that it satisfies the most of the indicia laid down by the *Brown Shoe* decision and will be found as a line of commerce in this action.

Items 5, 6, 7 and 8 are generally referred to as conductor lines. They embrace both aluminum and copper wire and cable as distinguished from the four items discussed above which involve aluminum conductor only.

Item 5, conductor wire and cable (aluminum and copper), is a broad line covering all such products whether bare or insulated. Both litigants have agreed that same, together with Item 7, wire and cable, insulated and covered (aluminum and copper), may also be considered as a line of commerce here.

The first dispute arises when the defendants contend that the broad line, referred to above, may not be broken down by separating therefrom, as a separate line, Item 6, conductor wire and cable, bare. The court adopts such contention and holds that Item 6 does not constitute a proper line of commerce. Such a grouping would include bare aluminum wire and cable and ACSR. The Government has already asserted and agreed that such products are not competitive with copper or interchangeable therewith. In fact, these products are used in the overhead transmission field to the practical exclusion of copper. Grouping them together in Item 8 does not define a single product market. The Bureau of the Census has established separate product classifications for bare copper and for bare aluminum wire and cable. Because a broad line of commerce may be proper does not mean that it may be broken down into all possible fragments.

The proof as to Item 8, service drop cable (aluminum and copper), asserted by the Government as a line of commerce, is rather confusing. As so urged, it is referred to as multiplex cable and consists of one or more insulated conductors twisted around a cable or uninsulated conductor. This contention seems to again recognize that insulated aluminum is not competitively distinct from insulated copper wire and cable.

The product is or can be made by any manufacturer equipped to produce insulated wire or cable and is simply a separation cf a particular item from the many other insulated products. Its use is primarily to carry electricity from the distribution point of the utility to the home or business place of the user and as secondary distribution lines carrying no more than 600 volts. The most popular type is of triplex construction and same is displacing open wire or weatherproof wire as a more popular product for service

drop, especially in new construction. The evidence is inconclusive as to amount of product known as service drop as distinguished from its use for other purposes including secondary distribution. As just indicated, weatherproof wire is still used as a service drop product from the utility pole to the entrance of the user's premises. No reliable data is available as to the extent of such use at the times relevant here. Two other types of cable, known as type "K" and type "SD" are presently used for the above purpose in particular localities. It would seem that to constitute a line of commerce, the substitutes for multiplex cable for secondary distribution use, weatherproof and the two types of cable, referred to above, may not be eliminated from consideration as a part of the service drop product line. Their absence, together with a consideration of the indicia, referred to herein, leaves the proof something less than convincing. If a product line is designated in terms of function, it must include all competitive substitutes accomplishing the same result. The Item is held not to be a relevant line of commerce herein.

THE GEOGRAPHIC MARKET

The litigants have agreed that in respect to all of the above lines of commerce, whether or not allowed as such herein, the United States as a whole constitutes a section of the country within the contemplation of Section 7 of the Clayton Act.

Item 9, conduit (aluminum and steel), has been agreed upon as a line of commerce. This item includes both rigid conduit and electrical metallic tubing (EMT). It is simply a metallic enclosure to protect lines or cables carrying electric current from outside injury or harm.

Controversy again arises in the matter of the Government's contention that the above broad conduit line may be separated by a submarket line of aluminum conduit alone. The contention is based principally on the separate characteristics and uses test. This single test, as indicated above, is not conclusive; in fact it is not applicable where such characteristics and uses do not render it generally non-competitive. Here the great weight of evidence is to the effect that aluminum and steel conduit are in direct and vigorous competition for the consumer trade. They are functionally interchangeable; alternate quotations are frequently sought by consumers and they react or are related in price change to each other. Aluminum conduit, taken alone, fails to meet the majority of the prescribed tests as a separate submarket and the contention of plaintiff that Item ten is a relevant line of commerce is rejected.

THE GEOGRAPHIC MARKET

There is no dispute but that the United States as a whole is an appropriate section of the country in which the impact of the merger may be considered as to both steel and aluminum conduit and aluminum conduit alone. The Government claims however that eleven western states (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming) also constitute an appropriate geographic market for both of the above products. The claim is based upon the fact that the greater portion of Rome's total sales of conduit prior to the merger was made to customers within that area. The above statement is also true as to sales made after the merger. The evidence fails to show that such sales were made in that area as a particular market. Rome's sales expanded from a six state area

to a fourteen state area. The above eleven state area was used because data within same was available for comparison purposes. The evidence shows that freight rates and commercial realities are such that outside or eastern producers can ship conduit within the eleven state area and compete effectively with western producers.

In other words the purchaser within that area can turn for supplies to a producer located in any section of the country. *Tampa Electric Co.* v. *Nashville Co.*, 365 U.S. 320 at 327. The eleven state area is rejected as a proper geographic market in which to measure the impact of either conduit lines of commerce.

THE COMPETITIVE EFFECT OF THE ACQUISITION

The competitive effect of the acquisition upon the relevant lines of commerce, referred to above, is not determined in accordance with a rigid formula. Guides are furnished in the *Brown Shoe* decision and the cases cited therein. Reference will be made to those which seem to be pertinent here and will be applied to all claimed lines of commerce whether or not allowed as above.

Purpose

The "nature and purpose of the arrangement" is referred to as a most important factor and will first be discussed since it necessarily involves the participants' competitive problems and something of the background of the defendants previously referred to herein.

Alcoa was the prime mover in bringing about the acquisition. Its share in the aluminum market had declined as referred to herein. Its return on invested capital had declined from 9.3% in 1950 to 3.7% in 1961. It admittedly lacked the "know-how" to manufacture the more complicated types of insulated wire and cable for which there was a growing demand. Its principal

wire and cable product was ACSR and bare aluminum cable. The need for product diversification was apparent. Rome was known to Alcoa as a substantial organization with special competence in the insulating field. The time required to obtain such competence from within its own organization and the expense involved seemed to foreclose such a program. Rome was first approached and negotiations failed. An engineering company was retained to explore the market to obtain an organization which would furnish the "know-how" in the insulated wire and cable field. Negotiations were reopened with Rome and the acquisition followed. Competition between Rome and Alcoa was limited to four wire and cable products. Rome's production thereof was not significant in amount.

All of the above indicates an effort to overcome a market disadvantage rather than to obtain a captive market for its product or to eliminate a competitor. The terms of the contract itself indicates an intention to retain Rome after the acquisition as an active participant in the market which it occupied.

Concentration

Another factor deemed important in providing a factual background for weighing the probable effect of the acquisition is the trend toward concentration in the industry involved. The Government contends that such a trend exists insofar as the aluminum conductor lines of commerce are involved. In support of the contention, emphasis is placed upon the fact that the combined shares of the market produced by the five integrated producers is roughly averaged at 80%. This fact loses its significance when it is realized that the production of aluminum and the fabricating of its products were concentrated to the point of a monopoly less than twenty years ago and has undergone a gradual decentralization

by the entry of new producers and fabricators since that time.

Alcoa has no history of acquisitions or mergers prior to the acquisition of Rome. Alcoa acquired equipment or assets of three other corporations but aluminum wire and cable products were not involved therein and same could in no way contribute to a concentration in that industry.

The Government cites the acquisition by Olin-Mathieson of the Southern Electric Corp. in 1957. The acquisition by Kaiser in the same year of the U.S. Rubber Co. plant at Bristol, R.I. and the acquisition of John A. Roeblings' Sons Co. by Reynolds in 1961 as indicating a merger trend. When examined, the facts hardly support such an indication. Olin-Mathieson manufactured no aluminum wire and cable products prior to its acquisition of Southern. U.S. Rubber's market share of said products was 0.8% and Roebling's share was never over 0.1% prior to their acquisition by Kaiser and Reynolds as above. More significantly as indicating lack of competitive impact in the product market referred to is the post-acquisition market shares of the above acquiring and acquired companies which show a decline therein as does the Alcoa-Rome market share.

The market situation as to the two principal aluminum conductor lines of commerce can be summarized by stating that as to ACSR and bare aluminum cable, the number of producers of those products increased from Alcoa, alone, in 1940 to twelve such producers in 1950 which number is practically unchanged to date. There were about four producers of insulated wire and cable in 1951 (although government allotments of aluminum for that purpose were issued to eight) and as of April 1, 1961, there were twenty-nine producers of such products.

Ease of entry

Closely related to the question of trends of or concentration in the aluminum conductor lines of commerce is the question of the existence of barriers to the entry of additional competitors in that particular branch of the industry. This is sometimes referred to as the "case of entry".

The facts already stated above demonstrate that no serious impediment or barrier exists which would bar the entry of producers of wire and cable products. This is accounted for principally for the reason that similar techniques and the same machinery with but slight alterations may be used in the production of such copper and aluminum products. The fact that in ten years the number of producers of insulated wire and cable have risen from four to twenty-nine and most of the new entrants came from the ranks of insulated copper conductor producers is indicative that entry into the aluminum conductor field is dictated by the status of the competition rather than being controlled by actual economic barriers. That some companies have ceased making this product is not determinative. "It is competition, not competitors, which the Act protects". The evidence discloses that the withdrawal of certain producers from the production of this item was occasioned by an inability to make a profit and there is no evidence which would indicate that any potential producer has been unable to enter the industry when he thought that a profit could be made therein.

There is no doubt that problems are presented in the matter of the entry of a producer in the ACSR and bare aluminum cable market. The product itself involves specialized techniques and equipment especially in the larger sizes used in the overhead transmission field. In spite of difficulties, there are now

twelve such producers, one of whom plans an extension of its facilities. The situation in the industry as to the ease of entry of competitors therein is of course not determinative but is simply another factor to be considered in the appraisal of the problem as a whole.

Market shares

The market shares which Alcoa and Rome may control by the acquisition is one of the most important factors to be considered. Since the shares in each line of commerce (whether allowed or not) are discussed in the briefs, they will be set out here and the ultimate conclusions to be drawn therefrom will be found in the detailed findings to be filed in connection with this opinion.

In 1958, the Alcoa and Rome market percentages in the three principal aluminum conductor lines as claimed by plaintiff appear below.

	Alcoa	Rome
ACSR and Aluminum Cable, Bare	32.5	0.3
Aluminum Wire and Cable, Insulated or Covered	11.6	4.6
Aluminum Conductor Wire and Cable	27.8	1.3

The decline in the combined market percentages of Alcoa and Rome in the above products appears below, which shows a generally continued decline therein both pre- and post-acquisition.

	1954	1958	1961	Decline (percentage points)		
				1954-58	1958-61	1954-61
ACSR and Aluminum Cable, Bare	48.6	32.8	26.1	15.8	6.7	22.5
Aluminum Wire and Cable, Insulated or Covered	16.9	16.3	13.	.6	3.3	3.9
Aluminum Conductor Wire and Cable	43.9	29.1	24.8	14.8	4.3	19.1

In 1958 the market percentage of Alcoa and Rome in the four conductor (aluminum and copper) lines of commerce are set out below.

	Alcoa	Rome
Conductor Wire and Cable	1.8	1.4
Conductor Wire and Cable, Bare	10.3	2.
Wire and Cable, Insulated or Covered	.3	1.3
Service Drop	10.8	5.1

The plaintiff contends that the above percentage table should be increased by the shipments of conductor wire and cable made by the Rea Magnet Wire Co. for 1958. This company was acquired by Alcoa in 1960. Same would seem unimportant from a competitive standpoint since its product was entirely copper wire of small size used principally in coils, transformers, etc. It made no product which competed with Rome. If such products were added, it would increase the total of Alcoa and Rome by 1.1% for conductor wire and cable and 1.3% for wire and cable, insulated, and actually add little or nothing to the significance of the percentages involved.

There is no evidence that the market shares in the conductor lines of commerce have increased or diminished since the acquisition. It would be speculative to assume that the percentages have changed appreciably except perhaps in the case of service drop which is composed principally of aluminum as the conductor and would seem to be included within the insulated or covered aluminum wire line and therefore subject to the post-acquisition decline therein.

In the conduit lines of commerce, no probative pre-acquisition market data is available. At that time, Alcoa made only aluminum conduit while Rome made only steel conduit. Based upon a survey first made about 1960, Alcoa's share in the conduit market

(aluminum and steel) was 3.4% and Rome's share was 3.5%. In aluminum conduit alone, the survey shows that in 1960 Alcoa's market share was 12.0% and Rome's as agent for Alcoa was 14.5%. These later figures should not be construed as showing that Rome in the post-acquisition period actually manufactured aluminum conduit. It had no extruding facilities. The above percentage apparently represents sales of aluminum conduit completely manufactured by Alcoa but sold by Rome as its agent and conduit pipe produced by Alcoa and threaded at the California plant of Rome. The accuracy of the above market shares is seriously questioned by defendants which, together with their incompleteness, afford little, if any, basis for a finding of the effect of the acquisition upon competition in either of the alleged lines of commerce whether or not allowed as such.

The market shares of the defendants in aluminum ingot and rod line of commerce appear to be inconclusive. Rome was not a producer of primary aluminum and did not compete in that market. Rome's purchase of primary aluminum amounted to .2% of the total industry production and .3% of Alcoa's production. Rome manufactured its own rod and additionally sold a small amount thereof for conductor use to non-integrated producers of wire and cable. Percentagewise, such sales amounted to a fraction of one percent of the market.

Industry evidence

In Brown Shoe, as in several other reported decisions, industry evidence as to the actual or potential effect of the acquisition upon suppliers and purchasers has been considered as a factor in determining the effect of the acquisition upon suppliers and purchasers. There is an entire absence of such evidence on the part of the Government. The passage of al-

most three years from the time of acquisition to the time of trial would seem to bring to light the anticompetitive effect of same if in fact it existed. Evidence to the contrary appears in the record. The defendants, through some eight or more witnesses, actively engaged in the aluminum wire and cable industry—all testified without exception that the acquisition has not had an adverse effect upon the purchasers of such products. No difficulty has been encountered in expanding their list of suppliers and that competition among such suppliers has not been affected.

The dominant position of Alcoa

Throughout the trial and in the submitted briefs, the Government has taken the position that Alcoa occupies a dominant position in the production of primary aluminum and in the manufacture of aluminum conductor wire and cable products. It is urged that this acquisition has enhanced that position and is therefore a factor in determining the competitive effects thereof. So much reliance is placed thereon that a brief discussion would seem appropriate.

Undoubtedly Alcoa is large in size, both physically and financially. Its activities are varied and extensive. Care however must be taken not to exaggerate its influence because of its size alone, especially in the absence of evidence of the abuse of the power which goes with size. *U.S.* v. *U.S. Steel Corp.*, 251 U.S. 417; *U.S.* v. *Swift & Co.*, 286 U.S. 106. The mere intrusion of "bigness" into a competitive market will not in itself violate the statute. *Reynolds Metals Co.* v. *F.T.C.*, 309 F. 2d 223 at 230. Here the Government's contention as to the dominance of Alcoa appears to rest upon size alone without evidence as to the exercise of the power that goes with it. In 1957, Judge Cashin in *U.S.* v. *Aluminum Company of*

America, 153 F. Supp. 132 at 167, found as a fact that Alcoa's relative share of the aluminum market had declined at that time. That such decline has continued to date appears without contradiction in this case. An increase in the money value of products sold means nothing in the light of the increase in the total market and the decline in the rate of return on Alcoa's invested capital. The increase in the number and market shares of primary aluminum producers and wire and cable producers all point to the conclusion that Alcoa's position in the above markets is something less than dominant. In any event, if Alcoa has the power to dominate, the record fails to show that such power has been used to its own advantage. The position of Alcoa in the above mentioned markets is relevant in this proceeding as a part of the overall picture upon which the decision must be based but this court sees nothing therein from which it could find that such position and the use thereof are indicative of forbidden anti-competitive practices.

The competitive impact

In appraising the impact of the acquisition, we turn first to the relationship between Alcoa and Rome as a source of supply and as direct competitors.

The customer-supplier relationship, referred to as the vertical aspect, requires little comment. Rome's purchase from Alcoa of primary aluminum was about 3/10 of one percent of Alcoa's production of that product. This small amount is without significance from a competitive standpoint but indicates rather clearly that the acquisition did not involve the purchase by Alcoa of a captive market.

The market area in which both the acquiring and acquired companies manufactured and sold competing products was limited to four or five items previously mentioned herein. The combination of the manufac-

turing and selling facilities of the two companies on these items involves the horizontal aspect of the acquisition in its actual and probable effects upon competition.

In ACSR and bare aluminum cable, Rome's pre-acquisition share of the market was 0.3%. In fact, Rome competed only in the smaller sizes of the product while Alcoa manufactured and sold a full line thereof. The products known as covered line wire or weatherproof and multiplex cable may be discussed together. These products have many end uses but are limited here to "service drop" which has been rejected as a line of commerce. In 1958, Alcoa's share in the service drop market, according to the figures of the Census of Manufactures was 10.8% and Rome's was 5.1%. These figures do not however include the product known as weatherproof wire, also used as service drop, which was reported under a different classification. Pre-acquisition figures are not available as to the market shares of the defendants in the product known as conduit. During the above time period, Rome manufactured steel conduit, both rigid and thin or electrical metallic tubing (E.M.T.). Alcoa manufactured rigid aluminum conduit and aluminum E.M.T. so that competition between them was in effect the competition between steel and aluminum. The nature and extent of the inter-defendant competition, resulting from the above, may be gathered from the discussion of the market shares of the defendants in the conduit lines of commerce as contained herein and needs no repetition here. The same may be said of the item of redraw rod. The extent of the competition therein may also be gathered from the brief discussion herein of market shares of defendants in that item.

Considered only from the manufacturing level, the comparatively small percentages of the market which Rome held in the overlap or competing products would not alone condemn the acquisition especially in view of the purpose and the other relevant factors previously discussed.

The principal contention urged as violative of the statute arises from the premise that the integrated producers are involved in a struggle for monopoly power with the non-integrated producers as their opponents. The argument proceeds to the conclusion that the acquisition adds to the numerical and market strength of the integrated companies especially in the aluminum lines of commerce and is therefore to be condemned.

Without doubt, an integrated company enjoys advantages over its non-integrated competitor. Such advantages would include the ability to sell intermediate products as well as end or fabricated products. Thus at least two opportunities to make a profit are available. They are able to offer a broader line of products to the trade and their sales organizations are likewise given more latitude and sale techniques extended. These advantages are not necessarily conducive to competitive strength in the lines of commerce involved. The financial outlay required, the obtaining and holding of the required skills, the constant research and experimentation, which are required of the seller of intermediate products, are burdens which the fabricator avoids but the integrated producer must carry.

The arraying of the integrated companies on one side and the non-integrated companies on the other overlooks entirely the active and vigorous competition among the integrated companies. In Alcoa's analysis of its lost business from 1957 to 1959, it

appears that the larger portion of same was lost to integrated producers. Its loss of business to Rome during the same period was insignificant. Previous government action was designed to facilitate the entry of manufacturing competitors of Alcoa's products. Now that such competitors have come into existence, the realities of competition dictate that same may not be ignored or distorted in appraising the competitive market as a whole.

Plaintiff presents statistics tending to show that the market shares of the integrated companies in the aluminum conductor lines of commerce have increased from 1955 to 1959 while the shares of the non-integrated companies have decreased during the same period. This is accounted for principally by the addition of Anaconda and Olin-Mathieson (Ormet) to the list of integrated producers. More significant however is the fact that since the acquisition and up to 1961, the non-integrated companies have held or increased their market shares in the lines under discussion while the shares of the Alcoa-Rome combination have declined. In the ACSR and bare aluminum cable and aluminum conductor wire and cable lines, the non-integrated producers have retained their shares of the market, while the share of Alcoa-Rome in ACSR has dropped from 32.8% to 26.1% In aluminum conductor, the non-integrated producers have retained their market shares while the share of Alcoa has decreased from 29.1% to 24.8%. In the insulated or covered line of commerce, the non-integrated producers market share has increased from 29.8% to 33.5% while the share of Alcoa-Rome has declined from 16.3% to 13.0%.

The above is proof of what has actually happened in the competitive market. It is a competitive reality much more convincing than arguments based upon speculative future market conditions. When such facts

are supported by the oral testimony of utility purchasing agents and non-integrated manufacturers to the effect that the acquisition has not adversely affected their businesses, a finding of a substantial lessening of competition is precluded. The fact that some four or five non-integrated producers have reduced or abandoned their aluminum conductor wire business since 1956 is offset by the entry of at least one new company and increase in their productive facilities by four others. The reduction in or abandonment of the manufacturing of these products were brought about principally by an inability to make a profit therein. This situation tends to confirm rather than to negate the existence of a vigorous competition in the products involved.

The plaintiff advances the argument that the acquisition has eliminated the "potential competition" which would have existed if Rome and Alcoa had separately expanded their facilities so as to include additional aluminum products or increased the production of the overlapping competing products. Like many business concerns, the defendants undoubtedly were constantly reviewing their product lines and exploring the possibilities of expansion. There is no evidence however that either had reached a firm conclusion that such an expansion had or would meet with the necessary approval of those in authority. Expansion from within rather than by acquisition may be preferable from the economist's point of view but the statute makes no such prohibition. The substantial lessening of competition, either actual or probable, is the test.

Considerable discussion is found in plaintiff's brief to the effect that this acquisition increased the problem of a "price squeeze" by the integrated producers or by Alcoa in particular. The discussion proceeds upon the theory that the price of primary aluminum to the fabri-

cators may be so increased that they will be unable to make a profit from sale of the end products. This court does not understand just how the acquisition could affect the problem. Rome was not a primary aluminum producer and its acquisition by Alcoa did not affect either the production or price of that product. Certainly the fabricator would like to buy his basic material as cheap as possible. This contention ignores the competition between primary aluminum producers and seems to assume without evidence to support it that such producers will abandon by an unconscionable pricing arrangement the market for primary aluminum and be content to sell only the end product. This overlooks entirely the present competitive situation among primary aluminum producers, the government required allotment of primary aluminum, and the availability of Canadian and foreign intermediate aluminum products. The argument is purely speculative and without evidence to support it.

Although the above discussion applies particularly to the three alleged aluminum conductor lines of commerce, the factors considered would also apply to aluminum ingot and rod used in the production of aluminum conductor wire and cable and to service drop cable which are urged as proper lines of commerce here by the plaintiff. No separate discussion of the competitive effect of the acquisition upon those two lines of commerce is necessary. While service drop is made with either an aluminum or copper conductor, the aluminum type presently predominates. The ease of entry into the business of manufacturing of service drop and the evidence that the Alcoa-Rome share of the market in insulated or covered aluminum conductor, which includes aluminum conductor service drop, has diminished since the acquisition, in particular prompts the conclusion that the acquisition does

not violate the statute insofar as the service drop and aluminum ingot may be involved.

The competitive effect of the acquisition in the three principal conductor (aluminum and copper) lines of commerce is not particularly stressed in the plaintiff's briefs or argument. The market shares of Alcoa and Rome therein are not impressive. Alcoa's higher percentage of the market in conductor wire and cable, bare, is made up of ACSR and bare aluminum cable which comprises all but one-tenth of one percent of its market share. Rome's share in the same item (lacking one-tenth of one percent, is made up of bare conductor copper wire and cable which are not competitive with ACSR as indicated in the discussion of ACSR as an appropriate line of commerce. There is no evidence of post-acquisition trends in the lines now considered. Likewise there is no evidence that the market, broadened by the inclusion of the competition afforded by the over two-hundred wire and cable producers (both aluminum and copper), will suffer actual or probable anti-competitive effects. There is evidence that such market comprises many strong and vigorous competitors. Alcoa obtained by the acquisition a diversification of its product line by the addition of Rome's copper wire and cable products. Rome however remains as the same source of supply of such products. Considering the same factors discussed herein and applying same to the items presently referred to leads to the conclusion that the statute is not violated as to the three conductor lines of commerce referred to above.

The approach to the consideration of the competitive effect of acquisition upon the conduit lines of commerce is handicapped by the absence of reliable market data. The Brown Shoe case opinion, in referring to the Congressional intent, uses the language

"demonstrable anticompetitive effects" as the type of mergers to be invalidated by the statute. Prior to the acquisition, Alcoa manufactured only aluminum conduit, Rome only steel. We have no evidence of the pre-acquisition share of either company in the market. We do have a hesitating and inconclusive estimate of Rome sales in the eleven western states which is rejected as a proper geographic market. The available post-acquisition data lacks the reliability upon which a demonstrable anticompetitive effect may rest. In 1960, the Bureau of the Census compiled figures that defendants' market share of conduit, both steel and aluminum, was 6.9%. This percentage was allocated 3.4% to Alcoa and 3.5% to Rome. The same report attributes the defendants' combined share of aluminum conduit at 26.5%. The above was the first such survey made by the Bureau and forms for same were sent only to those who designated themselves as producers of conduit in 1958 and 1959. The evidence shows that at least three aluminum producers entered the conduit field in the 1958–1960 time period.

Again plaintiff appears to stress the status of the defendants in the aluminum conduit line as having anticompetitive effects. Although aluminum conduit has been rejected as a relevant line of commerce here, brief comment will be made relative thereto. Entry to the aluminum conduit market requires only an outlay of ten to fifteen thousand dollars by those producers owning extruding equipment. In 1950, there were fifty such owners. The number increased to one hundred and ten in 1955 and to one hundred thirty-three in 1960. The ease of entry is further corroborated by the substantial number of new producers of aluminum conduit in recent years. This is due to the increased demand for the product and provides an active competitive market therein. There is a failure

of proof to show that the statute is violated by the acquisition as to either of the conduit lines of commerce as claimed by the plaintiff.

Using the pragmatic practical approach, an appraisal of the acquisition here involved designates same as the combination of an aluminum and an essentially copper manufacturing company. Such an acquisition implies advantages to the acquiring company. Such advantages are not to be condemned unless they portend or approach monopoly proportions. It is the loss to competition rather than the advantage gained that invokes the statute here. Alcoa gained an increase in its scientific knowledge and ability in insulating techniques and a diversification of its line of salable products. This would seem to be a legitimate end in the face of its declining market. There is less need than usual to speculate here upon the effect of the acquisition upon competition. Not only do we have industry evidence as to the actual effect from competitors and purchasers but we also have the factual results of almost three years of market experience. After consideration of all of the evidence offered herein, it is concluded that the acquisition by Alcoa of the capital stock of Rome has not been shown to be in violation of Section 7 of the Clayton Act; that the claim of the complaint has not been established and that same should be dismissed.

This opinion, together with the Findings of Fact and Conclusions of Law, to be filed herewith, will constitute the Findings and Conclusions of this court and judgment is directed accordingly.

So ordered.

STEPHAN W. BRENNAN,
United States District Judge.

APPENDIX B

United States District Court
Northern District of New York

Civil No. 8030

UNITED STATES OF AMERICA, PLAINTIFF

against

ALUMINUM COMPANY OF AMERICA AND
ROME CABLE CORPORATION, DEFENDANTS

The Findings of Fact and Conclusions of Law, set out below, together with the opinion, filed herewith, will constitute the decision in this case.

Findings of Fact

1. The defendants, Aluminum Company of America and Rome Cable Corporation, hereinafter referred to as Alcoa and Rome, maintain offices, transact business and are found within the Northern District of New York.

2. The defendant Alcoa is a corporation organized and existing under the laws of the State of Pennsylvania, with its principal office in Pittsburgh, Pennsylvania.

3. Alcoa is an integrated aluminum producer engaged in the manufacture and sale of primary aluminum, intermediate aluminum products, and various end products. It manufactures these products in several states and sells and ships such products throughout the United States in interstate commerce.

4. The defendant Rome is a wholly owned subsidiary of Alcoa, organized and existing under the laws of the State of Delaware, with its principal office at Rome, New York. It was organized by Alcoa for the purpose of holding the assets of its predecessor, also called Rome Cable Corporation, a New York corporation.

5. Rome manufactures, among other products, copper rod, electrical wire and cable, conduit and cable trough and cable installation devices. It manufactures these products in several states and sells and ships them in interstate commerce to its customers located in many states of the United States.

6. On March 31, 1959, defendant Alcoa acquired by stock transfer all of the assets of Rome-New York. Title to such assets was taken by the defendant Rome (Delaware) which also assumed Rome-New York's liabilities.

7. Alcoa's purpose in acquiring Rome was to acquire the ability to manufacture the more complicated insulated wire and cable products and diversify its operations. Rome's manufacture of aluminum products did not induce said acquisition.

8. In its search for a suitable company, Alcoa in 1958 retained the services of Ebasco Services, Inc. Ebasco was advised that Alcoa's purpose was to secure know-how in the insulating field.

9. While Alcoa considered other insulating companies, Rome was its first choice. This preference arose principally from the fact that Rome's personnel and organization were well and favorably known to Alcoa through their mutual association in a "tolling arrangement" entered into in 1952.

10. In the course of negotiations with Rome, Alcoa made it clear that, if acquired, Rome would operate as a separate division with a high degree of autonomy

and increased responsibility with regard to the sale of wire, cable and conduit products.

11. The evidence does not establish that Alcoa's acquisition of Rome was part of a continuing program contemplating future expansion through mergers or acquisitions in wire and cable, conduit, or any related field.

12. Alcoa mines and processes bauxite, refines bauxite into alumina, and smelts alumina into aluminum. The aluminum, so produced, is sold either in alloyed or unalloyed form, as ingot, or is used by Alcoa in its own fabrication of a wide variety of semi-finished and finished products. Among the products fabricated by Alcoa are sheet and plate, extrusions, castings, forgings, wire, rod and bar, electrical conductors and accessories, conduit, foil, tubing, rivets and screw machine products, closures, and powder and paste.

13. Prior to the acquisition of Rome, Alcoa's participation in the electrical wire and cable field was limited to the manufacture and sale of bare all-aluminum cable, bare aluminum conductor steel reinforced (ACSR), and polyethylene covered line wire and multiplex cable. It also sold neoprene covered line wire and multiplex cable manufactured for it by Rome. Alcoa made no electrical wire and cable products using copper as the conductor; nor did it make any of the more complicated insulated constructions, such as, among others, building wire, power cable, control cable, and magnet wire.

14. Bare wire and cable products constituted the great preponderance of Alcoa's sales in the electrical wire and cable field. In 1958, out of Alcoa's total conductor wire and cable shipments of 62.9 million pounds, ACSR and bare aluminum cable amounted to 56.9 million pounds, or more than 90 percent of the total.

15. While Alcoa continues to be the leading United States producer of primary aluminum and fabricated aluminum products, its position has declined markedly in recent years (Opinion, page 11).

16. Prior to the acquisition, Rome was primarily a manufacturer of electrical wire and cable. It had three manufacturing plants located at Rome, New York; Torrance, California; and Collegeville, Pennsylvania. It produced and sold bare wire and cable and a diversified line of insulated wire and cable products; it manufactured copper and aluminum rod for use in its own operations and for sale to other manufacturers; and it produced copper rod and certain wire and cable products on a toll basis using materials supplied by others. In addition, at its plant in Torrance, California, Rome manufactured steel rigid conduit and electrical metallic tubing (commonly referred to as EMT) and mechanical steel tubing. At its Cope Division plant in Collegeville, Pennsylvania, it manufactured a line of cable supporting systems, including cable trough and trays. In calendar year 1958, Rome's sales (exclusive of toll conversion) in its major product categories were approximately as follows: Wire and cable, $23.4 million; rod, 4 million (includes aluminum rod sales of $128 thousand); conduit (rigid and EMT) $6.5 million; and, Cope products, $1.3 million.

17. Rome's primary emphasis in the wire and cable field was on the manufacture of insulated wire and cable products. It was a skilled manufacturer of the more complicated insulated products, and had in this area technical ability that Alcoa lacked.

18. Copper was by far the predominant metal used by Rome in its wire and cable operations. Its importance is shown by the fact that in the five years prior to the acquisition copper represented more than

90 percent of Rome's combined copper and aluminum purchases, and copper products accounted for more than 90 percent of its wire and cable sales revenue.

19. On March 7, 1952, Alcoa and Rome entered into a continuing agreement, referred to as a "tolling agreement", whereby Rome would cover bare aluminum wire furnished by Alcoa for the account of Alcoa. The agreement provided that Rome would cover or insulate bare aluminum wire with neoprene or polyethelene insulating materials. The arrangement permitted Alcoa to take advantage of the superior "know-how" of Rome in the matter of covering of bare wire products some of which were sold in competition with Rome.

20. Prior to the acquisition only five products were manufactured and sold by both Alcoa and Rome. These products can be identified as follows: (a) Aluminum Conductor Steel Reinforced (ACSR) and Aluminum Cable, Bare; (b) Covered Line Wire (also referred to as Weather-proof). This product consists of a copper or aluminum conductor covered with a synthetic rubber (neoprene), thermo-plastic (Polyethylene), or fibrous covering; (c) Multiplex Cable; (d) Conduit; (e) Aluminum Redraw Rod. Aluminum redraw rod is an intermediate aluminum product used in the fabrication of aluminum wire.

21. Prior to the acquisition, defendants manufactured and sold the overlap products refered to in Finding 20 as follows:

> (a) ACSR and Aluminum Cable, Bare. Alcoa made ACSR and aluminum cable, bare, in a full range of sizes; Rome made only a limited range of sizes. Alcoa's total sales amounted to approximately $23,000,000 in 1958 of which approximately $8,000,000 represented sales in the size range Rome was able to make.

Rome's sales in 1958 amounted to approximately $240,000.

(b) Covered Line Wire and Multiplex Cable. Alcoa did not sell these products until 1952 when it entered into a tolling arrangement with Rome under which Rome manufactured polyethylene and neoprene covered aluminum line wire and multiplex cable which Alcoa sold for its own account. In 1956, Alcoa started to produce its own polyethylene covered line wire and multiplex cable, and at the time of the acquisition it had under consideration a plan to install neoprene covering facilities. Rome produced covered line wire using copper or aluminum conductors and having either neoprene, polyethylene or fibrous covering. It also produced multiplex cable using copper and aluminum insulated conductors. Alcoa's covered line wire and multiplex sales in 1958 amounted to approximately $4,200,000; Rome's sales in that year, including both copper and aluminum, were approximately $3,700,000.

(c) Conduit. Prior to the acquisition, Rome manufactured steel conduit, both rigid and EMT; it made no aluminum conduit. Alcoa manufactured rigid aluminum conduit and aluminum EMT; it made no steel conduit. Alcoa's sales of aluminum conduit in 1958 amounted to approximately $525,000; Rome's sales of steel conduit amounted to about $6,500,000.

(d) Aluminum Redraw Rod. Prior to the acquisition Alcoa produced aluminum redraw rod on its rolling mills and Rome produced such rod by the Properzi method. Alcoa made sales of aluminum rod to other manufacturers of approximately $2,500,000 in 1958. Most of Rome's aluminum rod was consumed in its own operations, its sales to other manufacturers in 1958 amounting to only about $128,000.

22. Alcoa's net sales and operating revenues in 1958 amounted to approximately $753,000,000. Its sales in the overlap area, consisting of ACSR and aluminum cable, bare (sizes 336,400 cir. mils. and smaller), covered line wire and multiplex cable, conduit and aluminum rod, totalled approximately $15,-300,000, or about 2 percent of its net sales and operating revenues. The ratio between Alcoa's overlap and total sales for earlier years is approximately the same.

LINES OF COMMERCE

Explanation

Items 1–10, set forth on pages 13 and 14 of the filed opinion, detail the lines of commerce urged by the plaintiff as properly established in this action. Reference to same is made here without the repetition thereof. The Findings below are intended to supplement those made in the discussion of the various items as same appears in pages 14 to 19 of said opinion.

Aluminum conductor lines

23. Item 1, aluminum conductor wire and cable, is a composite of Items 2 and 3 and is not a separate and distinct line of commerce here. (See Opinion, page 15.)

24. Item 2, bare aluminum cable and ACSR (aluminum covered steel reinforced) have virtually displaced bare copper cable for use in overhead transmission lines. They are generally recognized as a separate product classification and the manufacture and sale of these products require special stranding equipment and designing skill. The parties have agreed that the manufacture and sale of bare aluminum cable and ACSR may be treated as a separate line of commerce for the purpose of this case and it is so found.

25. Item 3, insulated or covered aluminum wire and cable. The wire and cable industry defines insulated wire and cable products according to function or type, not according to the metal used as conductor.

26. Manufacturers of insulated wire and cable products regard themselves as insulators of wire and cable products, not as insulators of copper wire and cable on the one hand, or of aluminum wire and cable on the other.

27. The evidence establishes that wire and cable fabricators can draw, strand and insulate copper and aluminum interchangeably on the same equipment and with the same personnel. The only change required is the use of a different lubricant in the drawing operation and a cleanup of the drawing machine when it is to be used on a different metal.

28. Since copper and aluminum products are completely interchangeable from a performance standpoint, utility companies choose between copper and aluminum insulated or covered overhead products solely on the basis of economics. The decision requires evaluation of numerous economic factors in addition to the cost of the wire or cable itself.

29. While aluminum is used in various insulated wire and cable products, most such products, accounting for more than $1,250,000,000 out of total 1958 insulated wire and cable shipments of $1,320,000,000, are predominantly made from copper. Aluminum has gained its greatest acceptance in the insulated or covered field in products used in the overhead distribution of electric power, principally, covered line wire (weatherproof) and multiplex cable. Even with respect to these products, however, substantial quantities are sold using copper as the conductor.

30. Item 4. Aluminum ingot and rod used in the production of aluminum conductor wire and cable is a separate line of commerce. (See Opinion, page 16.)

Conductor wire and cable lines

31. Item 5, Conductor wire and cable (aluminum and copper) as a line of commerce corresponds to the electrical wire and cable industry. It includes the manufacture and sale of all bare and insulated or covered electrical wire and cable products, whether made from copper or aluminum. There is a generally recognized electrical wire and cable industry and the parties agree that conductor wire and cable may be treated as a line of commerce for the purpose of this case.

32. Item 6, Conductor wire and cable, bare (aluminum and copper), which consists of ACSR and aluminum cable, bare; bare conductor aluminum wire; and bare conductor copper wire and cable, is not a separate line of commerce here (Opinion, page 17).

33. Item 7, Wire and cable, insulated or covered (aluminum and copper) line of commerce consists of the manufacture and sale of all insulated or covered wire and cable products, both copper and aluminum and it is agreed that same constitutes a separate line of commerce here.

34. By Item 8, Service drop cable (aluminum and copper), plaintiff refers exclusively to multiplex cable, both copper and aluminum. The evidence fails to establish that the manufacture and sale of multiplex cable is a line of commerce separate and distinct from the manufacture and sale of other insulated or covered wire and cable products.

35. Multiplex cable is only one of many products of the insulated wire and cable industry. It is one of the simplest of such products, being nothing more than one or more simple insulated conductors twisted together with a bare cable. It requires no unique production facilities.

36. Virtually any manufacturer of insulated wire and cable products is capable of making multiplex

cable. A company equipped to manufacture building wire, power cable, control cable, or practically any other insulated wire and cable product can use its existing machinery and personnel to manufacture multiplex cable. Such companies constantly review their product lines, and switch from one product to another whenever it is profitable to do so.

37. Multiplex cable is not used exclusively as a service drop from the utility pole to the building, nor is it the only product used for that function.

(a) Weatherproof line wire in the form of two or three separate wires is extensively used for service drop purposes.

(b) Other cable, including Type K and Type SD cable, are used for service drop purposes.

(c) In addition to being used for service drop purposes, multiplex cable is also used as a self-supporting secondary line. The IPCEA-NEMA Standards Publications covering multiplex cable define the product as "neutral-supported secondary and service drop cables."

38. Item 9, Conduit (aluminum and steel). The parties are agreed that the manufacture and sale of conduit, both aluminum and steel, may be treated as a line of commerce for the purpose of this case.

39. The evidence does not establish that the manufacture and sale of aluminum conduit is a separate line of commerce.

40. Steel conduit and aluminum conduit are functionally interchangeable. Both are used to enclose and protect electrical wires and cables against external mechanical and chemical abuse. The evidence establishes that steel and aluminum conduit are in direct and substantial competition with each other.

41. The pricing of steel and aluminum conduit is directly related. Changes in the price of steel con-

duit cause corresponding changes in the price of aluminum conduit, and vice versa.

42. Aluminum conduit manufacturers meet strong and vigorous competition from the manufacturers of steel conduit, and vice versa.

THE GEOGRAPHIC MARKET

43. The parties agree that the United States as a whole is a proper geographic market or "section of the country" within which the impact of the acquisition may be measured as to all of the lines of commerce, whether or not allowed herein.

44. It has not been established that the eleven western states (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming) constitute an appropriate geographic market or "section of the country" with respect to either the conduit or the alleged aluminum conduit lines of commerce.

COMPETITIVE EFFECT IN THE CLAIMED LINES OF COMMERCE

45(a). Statistics showing Alcoa and Rome market shares in the aluminum conductor lines of commerce, both before and since the acquisition, are set forth in the following tables.

ACSR and Aluminum Cable, Bare

Year	Alcoa	Rome
	Percent	*Percent*
1954	48.4	0.2
1955	43.2	.1
1956	29.8	.3
1957	32.3	.3
1958	32.5	.3
1959	31.4	.7
1960	30.6	.1
1961	26.1	----------

Aluminum Wire and Cable, Insulated or Covered

Year	Alcoa	Rome
	Percent	*Percent*
1954	10.0	6.9
1955	10.8	6.9
1956	8.5	6.2
1957	9.4	5.3
1958	11.6	4.7
1959	12.2	4.4
1960	10.6	4.2
1961	7.3	5.7

Aluminum Conductor Wire and Cable

Year	Alcoa	Rome
	Percent	*Percent*
1954	42.8	1.1
1955	36.6	1.5
1956	24.8	1.7
1957	27.4	1.4
1958	27.8	1.3
1959	26.9	1.5
1960	25.4	1.2
1961	23.5	1.3

45(b). The relative market position of Alcoa and Rome combined in each of the three alleged aluminum conductor lines of commerce declined substantially both before and since the acquisition.

Alcoa-Rome Market Percentages

	1954	1958	1961	Decline percentage points		
				1954–58	1958–61	1954–61
ACSR and Aluminum Cable, Bare	48.6	32.8	26.1	15.8	6.7	22.5
Aluminum Wire and Cable, Insulated or Covered	16.9	16.3	13.	.6	3.3	3.9
Aluminum Conductor Wire and Cable	43.9	29.1	24.8	14.8	4.3	19.1

46. There is no significant pattern or trend of mergers with respect to the manufacture and sale of aluminum conductor wire and cable products.

47. In addition to Alcoa's acquisition of Rome, the only acquisitions which relate in any way to aluminum conductor wire and cable products were Olin-

Mathieson Chemical Corporation's acquisition of Southern Electrical Corporation in early 1957, Kaiser Aluminum and Chemical Corporation's acquisition of the Bristol plant of United States Rubber Corporation in early 1957, the Reynolds Metals Company's acquisition of the machinery of John A. Roebling's Sons Division of the Colorado Fuel and Iron Corporation in 1961.

48. Market statistics reflecting the market shares of the acquiring and acquired companies, both before and since the acquisitions are set forth in the following table:

Percentage Participation in Aluminum Conductor Wire and Cable

	1955	1956	1957	1958	1959
Southern Electrical	5.4	8.1			
Olin-Mathieson	.0	.0			
Combined Post-Acquisition			5.6	4.5	5.0
Kaiser	21.9	19.5			
U.S. Rubber	.8	.8			
Combined Post-Acquisition			18.8	23.1	19.0
Reynolds	8.0	8.1	9.0	10.4	10.8
Roebling	.0	.0	.0	.0	.1

49. The evidence fails to establish that Olin's acquisition of Southern and Kaiser's acquisition of the Bristol Plant of U.S. Rubber has hurt or will adversely affect competing manufacturers of aluminum wire and cable products.

50. No competing manufacturer of aluminum conductor wire and cable products has complained that this acquisition has or may adversely affect his competitive position. On the contrary, representatives of Central Cable, Southwire, General Cable, Essex, Nehring and other wire and cable manufacturers stated that in the three years since the acquisition there had been no adverse effect. No manufacturer-witness testified that he foresaw any future adverse effect, as a result of this acquisition.

51. The evidence fails to establish that Alcoa's ability to offer a broad line of insulated products, including those made from copper, gives it any substantial competitive advantage in the sale of aluminum wire and cable products.

52. The evidence establishes that prior to the acquisition, there was not substantial or vigorous competition between Alcoa and Rome in the sale of aluminum conductor wire and cable products. Alcoa's loss of business in such products from 1957 to 1959 was insignificant.

53. In regard particularly to the overlap wire and cable products, Rome was not an aggressive price competitor. It adhered to a policy of not going below the prices of its competitiors. It rarely participated in competitive bidding for ACSR; on insulated or covered products, it would generally quote on the basis of its published price schedules. Rome's adherence to this policy is established by the testimony of utility purchasing agents who stated, without contradiction that Rome was not an initiator of price reductions.

54. As recently as 1951, there were only four manufacturers of insulated wire and cable using aluminum conductor. The evidence establishes that as of April 1, 1961, there were at least 29 producers of insulated aluminum wire and cable.

55. Companies equipped to manufacture more complicated insulated copper wire and cable products, such as building wire, power cable and control cable, can readily manufacture the more simple products such as line wire and multiplex cable, using either copper or aluminum conductors, with its existing machinery and personnel.

56. The numerous manufacturers of insulated wire and cable constantly review their product lines and

switch readily from one product or conductor metal to another in accordance with market conditions. Such manufacturers not presently making insulated or covered aluminum products have considered whether or not to make such products, and would make them if profitable orders were obtained.

57. There has been substantial entry into the manufacture of ACSR and bare aluminum cable. Prior to 1940, Alcoa was virtually the only producer of these products; by 1950 there were 12 producers, most of whom were experienced copper wire and cable producers before getting into the ACSR field.

58. The evidence fails to establish or to permit the inference that any person has ceased or has been or probably will be deterred from entering into the manufacture and sale of aluminum conductor wire and cable products because of this acquisition.

59. Purchasers of the overlapping aluminum conductor products—ACSR and aluminum cable, bare, aluminum line wire, and aluminum multiplex cable—have not been and will not be adversely affected by the Rome acquisition.

60. Some of the utilities which formerly purchased from both Alcoa and Rome have sought to broaden the competitive base of their wire and cable purchasing. No difficulty has been encountered in expanding the supplier group.

61. Prior to the acquisition, Rome was a follower rather than an initiater of price reductions or concessions. It was rarely awarded business on the basis of competitive bidding.

62. The evidence establishes that there is vigorous competition among all manufacturers of aluminum conductor wire and cable products. The evidence fails to establish that any competitor of Alcoa and Rome, either integrated or non-integrated, has been or will be adversely affected by this acquisition.

63. Non-integrated manufacturers of aluminum conductor wire and cable products will not be deprived of a source of aluminum as a result of Alcoa's acquisition of Rome.

64. Substantial quantities of aluminum are available from foreign sources. Canadian production alone in 1960 amounted to more than 1.5 billion pounds, or more than 35 percent of total U.S. primary aluminum production. Such foreign aluminum is suitable for use by wire and cable fabricators and such fabricators have, in fact, purchased substantial amounts of foreign aluminum.

65. Alcoa's ability to supply non-integrated fabricators, including manufacturers of aluminum wire and cable will not be affected by the acquisition of Rome. It has operated below capacity since 1957. The following table shows Rome's pre-acquisition purchases of aluminum.

[Thousands of pounds]

Year	Total U.S. primary aluminum production	Alcoa primary aluminum production	Rome primary aluminum purchases	Rome primary aluminum purchases	
				Percent of total U.S. primary aluminum production	Percent of Alcoa primary aluminum production
1954	2,921,120	1,331,874	1,611	0.1	0.1
1955	3,131,442	1,404,461	3,175	.1	.2
1956	3,357,608	1,512,278	5,268	.2	.3
1957	3,295,418	1,424,095	3,236	.1	.2
1958	3,131,114	1,041,734	3,123	.1	.3

Under provisions of supply contracts with the General Services Administration, Alcoa is obligated to make available to non-integrated fabricators approximately 150,000,000 pounds of aluminum each year through 1971. Similar obligations on the part of Kaiser, Reynolds, and Harvey, make available to

non-integrated users approximately 300,000,000 additional pounds of aluminum.

66. The acquisition of Rome by Alcoa will not bring about, enhance or aggravate any so-called "price squeeze" on non-integrated fabricators of aluminum wire and cable.

67. The evidence fails to establish that either Alcoa or Rome would have become a more significant factor in the manufacture and sale of aluminum wire and cable products if the acquisition had not occurred. Neither company had definite plans to expand its aluminum wire and cable production.

68. The following table sets forth Rome's copper and aluminum wire and cable sales during the five full years preceding the acquisition.

[Thousands of dollars]

Year	Copper wire and cable	Aluminum wire and cable	Total	Percent copper
1954	$27,142	$1,770	$28,912	93.9
1955	36,921	2,458	39,379	93.8
1956	39,119	3,646	42,765	91.5
1957	26,992	2,898	29,890	90.3
1958	21,261	2,191	23,452	90.7
1959 (1st Qr.)	5,891	509	6,400	92.0

69. The evidence establishes that there is vigorous competition in the manufacture and sale of aluminum wire and cable products, that both integrated and non-integrated companies participate therein, and that there has been no reduction in the vigor of such competition since the acquisition.

70. Since Rome was not a primary aluminum producer, Alcoa and Rome did not compete in the sale of aluminum ingot whether used in the production of aluminum conductor wire and cable or otherwise.

71. Rome sold only limited amounts of aluminum redraw rod, of which only a de minimis amount was sold for electrical conductor use.

(a) Rome's sales of aluminum rod and the amounts sold for non-conductor and for conductor use are set forth in the following table:

[Thousands of pounds]

Year	Total EC rod sales	Sold for non-conductor	Sold for conductor use
1955	5	....	5
1956	139	124	15
1957	418	341	77
1958	387	372	15

(b) In its biggest year, 1957, Rome's rod sales for conductor use amounted to only about $\frac{3}{10}$ of one percent of aluminum bar and rod sold by domestic primary aluminum producers to non-integrated producers of conductor wire and cable in that year. In addition, at least one other non-integrated fabricator sold aluminum rod, so that Rome's sales would be an even smaller percentage of the total.

72. The evidence fails to establish that Rome probably would have become a more significant supplier of aluminum redraw rod to manfacturers of conductor wire and cable.

73. At the time of the acquisition and for several years prior thereto, Rome was producing its own aluminum redraw rod and purchased only de minimis amounts from others.

74. The evidence fails to establish that any competing supplier of aluminum ingot or rod has been or may be adversely affected by this acquisition.

75. The evidence fails to establish any reasonable probability that Alcoa's acquisition of Rome has or will substantially lessen competition or tend to create a monopoly in any of the alleged aluminum conductor lines of commerce.

76. The pre-acquisition market percentages of Alcoa and Rome are set forth in the following table, which gives figures for 1958:

[Thousands of dollars]

	Shipments	Percent of industry
Conductor wire and cable:		
Industry	1, 553, 955	
Alcoa	28, 521	1. 8
Rome	22, 001	1. 4
Alcoa-Rome	50, 522	3. 2
Conductor wire and cable, bare:		
Industry	232, 280	
Alcoa	24, 020	10. 3
Rome	4, 579	2
Alcoa-Rome	28, 599	12. 3
Wire and cable, insulated or covered:		
Industry	1, 321, 675	
Alcoa	4, 501	. 3
Rome	17, 422	1. 3
Alcoa-Rome	21, 923	1. 6
Service drop:		
Alcoa		10. 8
Rome		5. 1
Alcoa-Rome		15 9

77. Alcoa and Rome were not substantially competitive in the manufacture and sale of bare conductor wire and cable products.

Industry and Alcoa and Rome shipments of bare conductor (aluminum and copper) products for 1958 are shown in the following table:

[Thousands of dollars]

	Industry shipments	Alcoa		Rome	
		Shipments	Percent	Shipments	Percent
ACSR and aluminum cable, bare	62, 392	23, 883	10. 2	258	0. 1
Bare conductor aluminum wire	13, 395	137	. 1		
Bare conductor copper wire and cable	156, 493			4, 553	1. 9
	232, 280	24, 020	10. 3	4, 811	2. 0

78. Alcoa and Rome were not substantially competitive in the manufacture and sale of insulated or covered wire and cable products. Both before and since the acquisition, Rome has manufactured a relatively full line of insulated wire and cable products, chiefly made from copper. Alcoa's preacquisition participation in the insulated wire and cable field was limited to aluminum covered line wire and multiplex cable, amounting in 1958 to $^3/_{10}$ of 1 percent of total insulated or covered wire and cable shipments.

79. Alcoa's acquisition of the assets of Rea Magnet Wire Company on January 18, 1960 is without significance to any issue in this case.

80. Since Alcoa sold only aluminum bare and insulated or covered wire and cable products, the facts found with respect to the alleged aluminum conductor lines of commerce are also pertinent to the broader conductor lines of commerce.

81. The electrical wire and cable industry, including both copper and aluminum products, is characterized by vigorous competition. Upwards of 200 companies manufacture and sell electrical wire and cable, among them being many strong, well-financed and highly reputable concerns.

82. The evidence fails to establish any trend toward concentration in the manufacture and sale of wire and cable products.

83. On the basis of 1958 Census of Manufactures data, Alcoa in 1958 had 10.8 percent and Rome 5.1 percent of total industry shipments of service drop cable. The Census figures cannot be taken as a reliable measure of industry shipments of service drop products since they do not include weatherproof wire used as service drop which is reported to Census under a different classification. There is no evidence as to the amount of weatherproof wire used as service drop.

84. There is no company that makes only multiplex cable. On the contrary, it is only one of numerous insulated wire and cable products made by insulating companies. It is among the simplest of such products, and any company equipped to manufacture any other insulated wire and cable product, can use its existing machinery and personnel to make multiplex cable.

85. The evidence establishes that manufacturers not presently making multiplex cable constantly review their product lines, have considered entering into the manufacture of multiplex cable, and would be capable of doing so if market conditions warranted.

86. Aluminum has gained greater acceptance in multiplex cable than in any other insulated product. Prior to the acquisition, Alcoa sold only aluminum multiplex cable and Rome's multiplex cable was approximately 80 percent aluminum. The same is true as to other insulators for which data are available. Accordingly, the facts established with respect to the lack of effect of this acquisition on competition in the aluminum conductor lines of commerce are pertinent here.

87. The evidence fails to establish any reasonable probability that Alcoa's acquisition of Rome has or will substantially lessen competition or tend to create a monopoly in any of the alleged conductor wire and cable lines of commerce.

Conduit

88. There is no reliable evidence as to the pre-acquisition market shares of either Alcoa or Rome with respect to conduit, both steel and aluminum, or aluminum alone.

Based upon a 1960 Bureau of the Census report, defendants' combined share of the total conduit market in 1960 was 6.9 percent. Based upon the same

report, their combined 1960 share of conduit, other than steel, including aluminum conduit, was 26.5 percent.

The evidence shows the above report is based upon a survey undertaken for the first time in 1960 and lacks conclusiveness.

89. The evidence fails to establish that the acquisition has eliminated substantial actual or potential competition between Alcoa and Rome in the manufacture and sale of conduit or aluminum conduit.

90. Prior to the acquisition, Alcoa made and sold only aluminum conduit and Rome made and sold only steel conduit.

91. Alcoa's sales of aluminum conduit in the area where Rome sold most of its steel conduit were de minimis, ranging between $10,000 and $54,000 per year in the five years preceding the acquisition.

92. There are no substantial barriers to entry. Any company having extruding equipment can enter the aluminum conduit field by adding equipment needed for threading, labeling and lubricating which can be purchased for from $10 to $15 thousand.

93. The number of companies owning extrusion equipment has increased from 39 in 1950 to 110 in 1955, and to 133 in 1960.

94. It has not been shown that any company has been or will be deterred from entering the conduit field as a result of the Rome acquisition.

95. It has not been shown that purchasers of conduit or aluminum conduit have been or may be adversely affected in any way by Alcoa's acquisition of Rome.

96. It has not been established that any non-integrated manufacturer of aluminum conduit has been or may be adversely affected by this acquisition.

97. The decline in aluminum conduit prices since about 1958 is directly related to the competitive contest between steel and aluminum conduit.

98. The pricing of aluminum conduit to be competitive with steel was initiated by Hazelwood, a non-integrated producer, in about 1958 and continues as the result of such competition.

99. There is vigorous competition in the manufacture and sale of conduit and aluminum conduit. This competition has increased appreciably in recent years owing to the wider use and acceptance of aluminum conduit.

100. The evidence fails to establish any reasonable probability that Alcoa's acquisition of Rome has or will substantially lessen competition or tend to create a monopoly in the manufacture and sale of either aluminum conduit or conduit, including both steel and aluminum, in either the United States or the eleven western states.

CONCLUSIONS OF LAW

1. This Court has jurisdiction of the parties to and the subject matter of this action.

2. The manufacture and sale of each of the following products or product groups constitutes an appropriate line of commerce within the meaning of Section 7 of the Clayton Act:

- Item 2. ACSR and aluminum cable, bare.
- Item 4. Aluminum ingot and rod used in the production of aluminum conductor wire and cable.
- Item 5. Conductor wire and cable (aluminum and copper).
- Item 7. Wire and cable, insulated and covered (aluminum and copper).
- Item 9. Conduit (aluminum and steel).

3. Plaintiff has failed to prove by a preponderance of the evidence that the manufacture and sale of any of the following products or product groups con-

stitutes an appropriate line of commerce within the meaning of Section 7 of the Clayton Act:

Item 1. Aluminum conductor wire and cable.
Item 3. Insulated or covered aluminum wire and cable.
Item 6. Conductor wire and cable, bare (aluminum and copper).
Item 8. Service drop cable (aluminum and copper).
Item 10. Aluminum conduit.

4. The United States as a whole constitutes a section of the country within the meaning of Section 7 of the Clayton Act with respect to each of the ten lines of commerce alleged in this case.

5. Plaintiff has failed to prove by a preponderance of the evidence that the eleven western state area, consisting of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, is an appropriate section of the country within the meaning of Section 7 of the Clayton Act with respect to either the conduit or the aluminum conduit line of commerce.

6. Plaintiff has failed to prove by a preponderance of the evidence that the effect of Alcoa's acquisition of the assets and properties of Rome may be substantially to lessen competition or to tend to create a monopoly in any line of commerce in any section of the country.

7. Plaintiff has failed to prove by a preponderance of the evidence that the effect of Alcoa's acquisition of the assets and properties of Rome may be substantially to lessen competition or to tend to create a monopoly in any of the following lines of commerce, either in the United States as a whole or in the eleven western states (assuming that area to be an appropriate section of the country):

Item 2. ACSR and aluminum cable, bare.
Item 4. Aluminum ingot and rod used in the production of aluminum conductor wire and cable.
Item 5. Conductor wire and cable (aluminum and copper).
Item 7. Wire and cable, insulated and covered (aluminum and copper).
Item 9. Conduit (aluminum and steel).

8. Assuming each of the following to have been established as an appropriate line of commerce, plaintiff has failed to prove by a preponderance of the evidence that the effect of Alcoa's acquisition of the assets and properties of Rome may be to substantially lessen competition or to tend to create a monopoly therein, either in the United States as a whole or in the eleven western states (assuming that area to be an appropriate section of the country):

Item 1. Aluminum conductor wire and cable.
Item 3. Aluminum wire and cable, insulated or covered.
Item 6. Conductor wire and cable, bare (aluminum and copper).
Item 8. Service drop cable (aluminum and copper).
Item 10. Aluminum conduit.

9. Plaintiff has failed to prove by a preponderance of the evidence that the acquisition of the assets and properties of Rome by the defendant Alcoa violates Section 7 of the Clayton Act.

10. Plaintiff has failed to establish the claims or cause of action alleged in the complaint and the relief requested therein shall be and hereby is denied and this suit dismissed, and

Judgment is directed accordingly.

STEPHEN W. BRENNAN,
U.S. District Judge.

Dated: January 28, 1963.

APPENDIX C

United States District Court
Northern District of New York

Civil No. 8030

UNITED STATES OF AMERICA, PLAINTIFF
v.
ALUMINUM COMPANY OF AMERICA AND ROME CABLE CORPORATION, DEFENDANTS

Additional Findings of Fact

Pursuant to a motion made by the defendants under the provisions of 52(b) Federal Rules of Civil Procedure, the court makes the additional Findings of Fact which are set out below, same to be considered as supplemental to the Findings and Conclusions previously filed.

1. Because of the closer manufacturing controls required, E.C. grade aluminum, like other alloys, is sold at a premium; however, the price of E.C. aluminum ingot changes directly and correspondingly with the basic price of aluminum ingot.

2. In 1956, the year of Rome's greatest primary aluminum purchases, such purchases amounted to less than $\frac{7}{10}$ of 1 percent of total primary aluminum sold to non-integrated fabricators.

3. In view of the ability of aluminum producers to make E.C. and other types and alloys of aluminum interchangeably in accordance with orders received,

there is no basis for an inference that other producers will be foreclosed from a substantial market for primary aluminum as a result of Alcoa's acquisition of Rome.

4. Item 1, aluminum conductor wire and cable, excludes insulated copper products and therefore does not include all wire and cable products for which there is reasonable interchangeability of use or cross-elasticity of demand. In addition, the evidence fails to establish that the combination of bare and insulated aluminum wire and cable, considered as a whole, is generally recognized in the industry as a separate economic entity or submarket; nor, in view of facts found with respect to Item 3, insulated or covered aluminum wire and cable (Findings 25 to 29, inclusive; Opinion pp. 14–15) does the evidence establish that aluminum conductor wire and cable, including both bare and insulated products, has competitively significant peculiar characteristics and uses, is made on unique production facilities, or is sold by specialized vendors to a distinct class of customers.

STEPHEN W. BRENNAN,
United States District Judge.

Dated: February 21, 1963.

U.S. GOVERNMENT PRINTING OFFICE: 1963